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XXXII, No. 9

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Published by
THE ATHLETIC JOURNAL PUBLISHING CO.
 6858 Glenwood Avenue
 Chicago 26, Illinois

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1951-1952

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Eastern Advertising Representative:

Charles Thorp, 370 Lexington Avenue,
 New York City

Published monthly except July and August by the
 Athletic Journal Publishing Company, 6858 Glenwood
 Avenue, Chicago, Illinois. Member Audit Bureau of
 Circulations. Request for change of address must
 reach us thirty days before the date of issue with
 which it is to take effect. Duplicate copies cannot
 be sent to replace those undelivered through failure
 to send advance notice.

Subscription Prices: \$2.00 per year; \$3.00 for two
 years; \$3.75 for three years; \$1.20 for six months; \$1.00
 for five months; Canada \$2.50 per year; foreign \$2.75
 per year. Single copies 25 cents for current volumes
 35 cents per copy for back volumes. Copyright 1952.
 The Athletic Journal Publishing Company. Entered as
 second-class matter, August 14, 1925 at the post office
 at Chicago, Illinois under the Act of March 3, 1879;
 additional entry at Rochelle, Illinois.

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Nation-Wide Amateur Athletics

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FRONT COVER ILLUSTRATION

James Golliday of Northwestern, believed by many to be heir
 apparent to the title "World's Fastest Human," is pictured on the
 cover. Golliday's form is analyzed by means of the Athletic
 Journal's high speed camera and veteran coach, Frank Hill. See
 pages 6-9.



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 YOUR FOOTBALL EQUIPMENT
 HAS A DOUBLED LIFE...

BEFORE

AFTER!

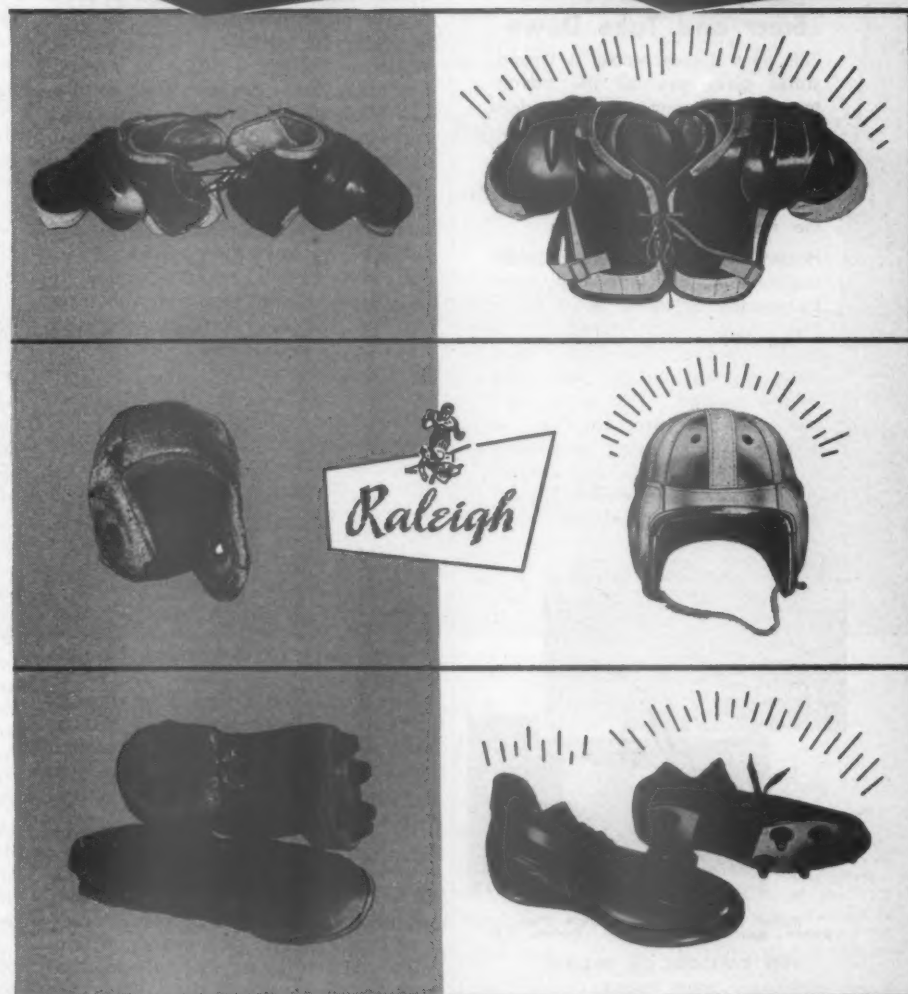
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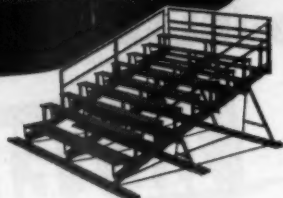
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from here and there



AFTER 29 years of coaching basketball Sam Storby will retire. Storby started his coaching career in South Dakota. After coaching in South Dakota and Iowa high schools, he went to Quincy, Illinois where his 1934 team won the state championship. During the next 13 years Storby was at Proviso High School in Maywood, winning three Suburban League championships. For the past four years he has been coach at George Williams College . . . Coach "Frosty" England's Arkansas State College football team of last fall was the nation's highest scoring college team. In addition, they were ranked second among the smaller colleges for defense. Very rarely does a team hold such a high rank in both offense and defense . . . Iowa State, Drake, Grinnell, and Iowa Teachers recently engaged in a unique type of tennis tournament. Each school entered five singles players and two doubles teams, each singles player and doubles team being ranked. Then all of the number one men played a round robin among themselves. The match consisted of ten games, and individual and team standings were determined by the number of games won. The same policy was followed in each of the singles ranks as well as in the doubles ranks. Four hundred twenty games were played . . . While it is true that coaching is a precarious profession, there are exceptions. Notable examples may be found at N.Y.U. where Emil Von Elling is serving his 39th year as track coach; Bill McCarthy follows with 31 years as baseball coach; and Howard Cann has just concluded his 29th year as basketball coach.

SEVERAL years ago Norm Wasser of Illinois won his second successive Drake Relays shot put championship. When Pepsi Cola decided to sponsor the Drake Relays' film they picked Wasser from their national sales staff to direct this endeavor . . . There have been many outstanding instances of sports reporting, but for the one displaying the most candor we select the report of a San Francisco sports writer in covering the National

Collegiate track meet at Berkeley a number of years back. His report went on to say that U.S.C. won the meet with 78 points; Ohio State was second with 40 1/6 points garnered off of four firsts by Jesse Owens, and a six-way tie for sixth place in the pole vault, which proves, he stated, that a team needs two Jesse Owens or 469 pole vaulters to beat U.S.C. . . . During the course of time Michigan has had 25 All-Americans divided almost exactly as the proportion of linemen to backfield men would indicate. Sixty-two and one-half per cent of these All-Americans have been linemen. Occasionally we hear that athletics and scholarships do not go hand in hand, but how about the basketball squad of Alamo Heights High School of San Antonio, Texas which won the Texas tournament? Eight of the twelve members of the squad are on the honor roll regularly.

GENE STAUBER, freshman coach and varsity scout last year for Michigan, is the new assistant coach at Stetson University. Stauber served with his new head coach, Joe McMullen, at Toledo University in 1949 . . . Forty per cent of the New York state high schools play soccer . . . A combination of six men won ten relay championships for Texas in the 1935 and 1936 seasons. Of that number only one, Beverly Rockhold, remained in coaching. Rockhold is track coach at Baytown, Texas, High School . . . Ward Cuff, former New York Giants football star, is the latest coach to step from scholastic to collegiate circles. Cuff leaves a tremendous record of 25 victories against only three defeats at Catholic High School of Green Bay, Wisconsin to join the Oregon State staff as backfield coach . . . Out of 123 out for spring sports at Duke only 14 are from the state of North Carolina. Golf leads with 30 per cent of the squad being from the state; baseball finds only one of a squad of 27 from North Carolina . . . Denver University's new field house presented a major problem in transportation. When the navy base at Farragut, Idaho was deactivated the huge drill hall was disassembled, moved to Denver, and reconstructed.

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Addition to
Purdue University Stadium,
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Owner: Ross-Ade Foundation,
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THIS STEEL addition to the Purdue University grandstand is 60 feet deep by 415 feet long and contains 30 rows. It increases the stadium's seating capacity by 7,100 persons. In addition to the steel framework, American Bridge erected the wooden seats, pipe handrailing and foundations, including steps or stairs extending from concourse levels to portals.

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AMERICAN BRIDGE

● When stadium construction is again permissible, more and more institutions will, like Purdue University, specify steel deck construction. The steel deck construction used here for the stadium addition has many advantages to offer projects like this. It costs less per seat to erect . . . and goes up in a very short time. Another feature of this type of construction is that, because it requires less supporting under-structure, it makes available a valuable area of

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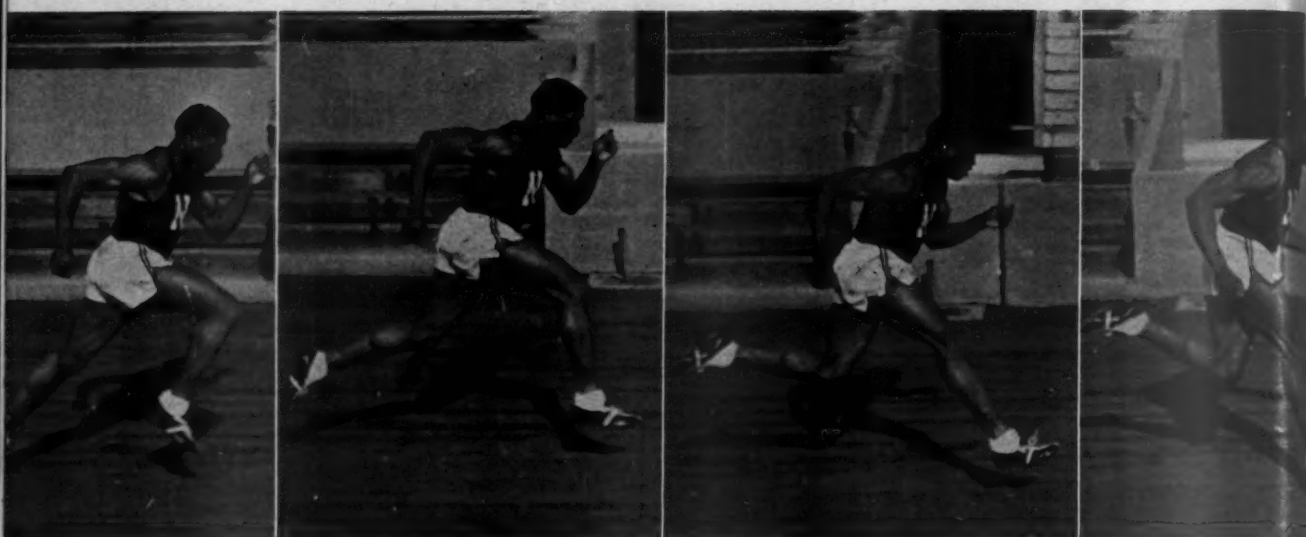
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shifted forward over his arms as the "set" position is taken. This is a close approach to a "bunch" start with the feet close together and the buttocks high.

In Illustration 3 the drive off the left foot is started.

Illustrations 4-10 show Golliday's right arm jerked backward, his left arm swings forward and up.

In Illustrations 5-10 it will be noticed that Golliday's body maintains a position parallel to the track. This indicates the power of his drive off the blocks.

Illustration 8 shows good arm action and the final phase of the

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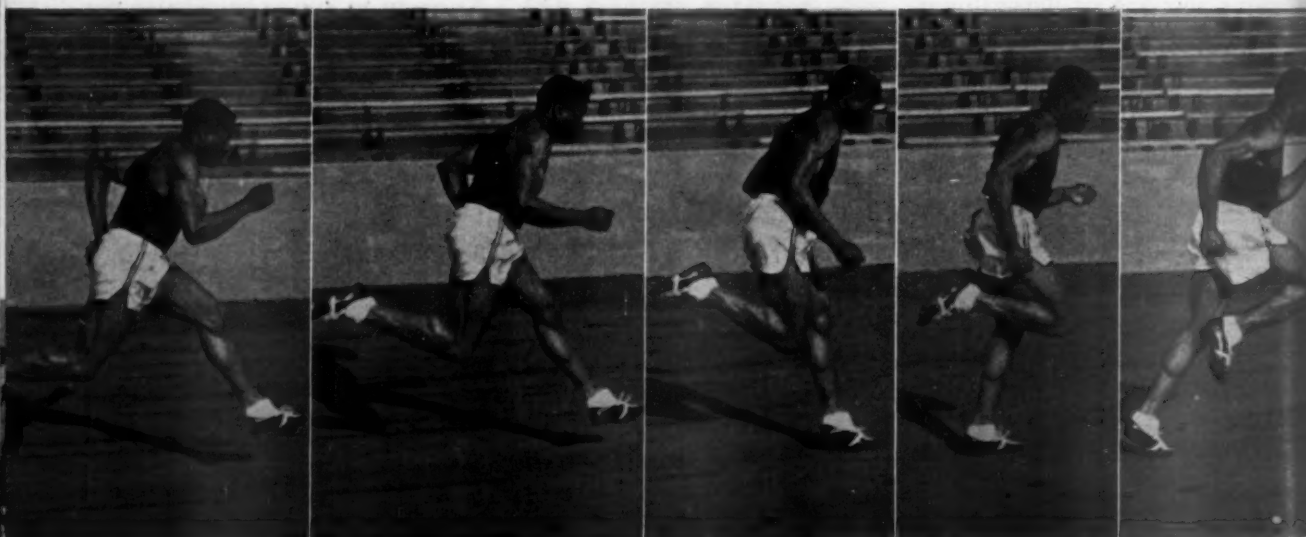
drive off the left foot. This is an especially good illustration.

The free hip swing, angle of the knee, and the bend of the right leg are shown in Illustrations 6-10.

In Illustration 11 the right foot strikes the track, ending the first stride. Golliday's body is still parallel to the track.

The bent knee and "bunched" position of the body afford great driving power for the second stride (Illustration 12). It will be noticed, however, that Golliday's body leans too far forward here for optimum results.

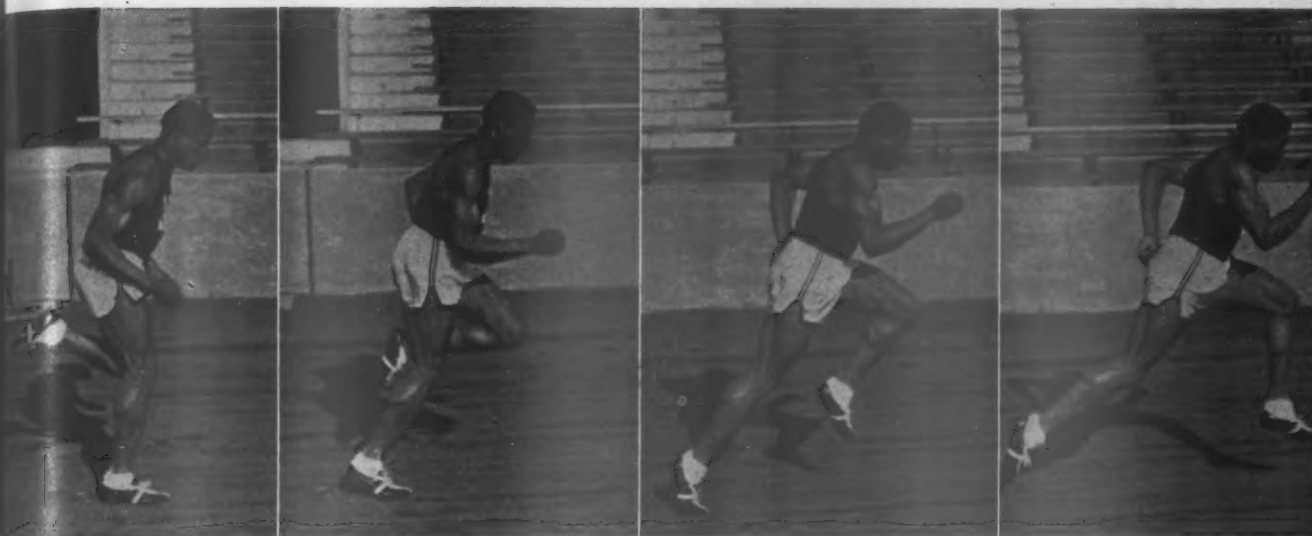
In Illustration 13 Golliday



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corrects the lean shown in Illustration 12.

Illustrations 14 and 15 show a good driving take-off on Golliday's second stride.

Sequence B Start—Front View

Illustrations 1-16. These illustrations show the "head-on" counterpart of the A series.

Illustrations A-8 and B-7 seem to catch the same action. One thing noticeable from this angle is that Jim runs with his feet wider apart than the textbooks advocate. This is due to his heavy thigh muscles which pre-

vent closer placing of his feet, but also provide him with much of his great driving power. The vigorous arm action and powerful "diving" start which get Jim under way are shown here. Golliday's legs have to work fast to get under him.

Sequence C View of Stride

Illustrations 1-18 show a stride study of Jim Golliday.

Golliday's balanced and powerful arm action and his well-maintained body lean are shown in this series. His body weight seems to be over his driving foot

at just the right moment (Illustrations 6, 12, and 13).

The relation between arm and leg action is shown beautifully in Illustrations 1, 2, and 3, and in 13, 14, and 15. Golliday's shoulder and arm swing back as his hip swings forward freely. This action results in a long, powerful, bounding stride.

Illustrations 1-13. These thirteen illustrations show different phases of only one running stride.

In Illustration 7 we see fine body lean.

Illustration 8 is an excellent picture of balanced action, power, and bounding stride.





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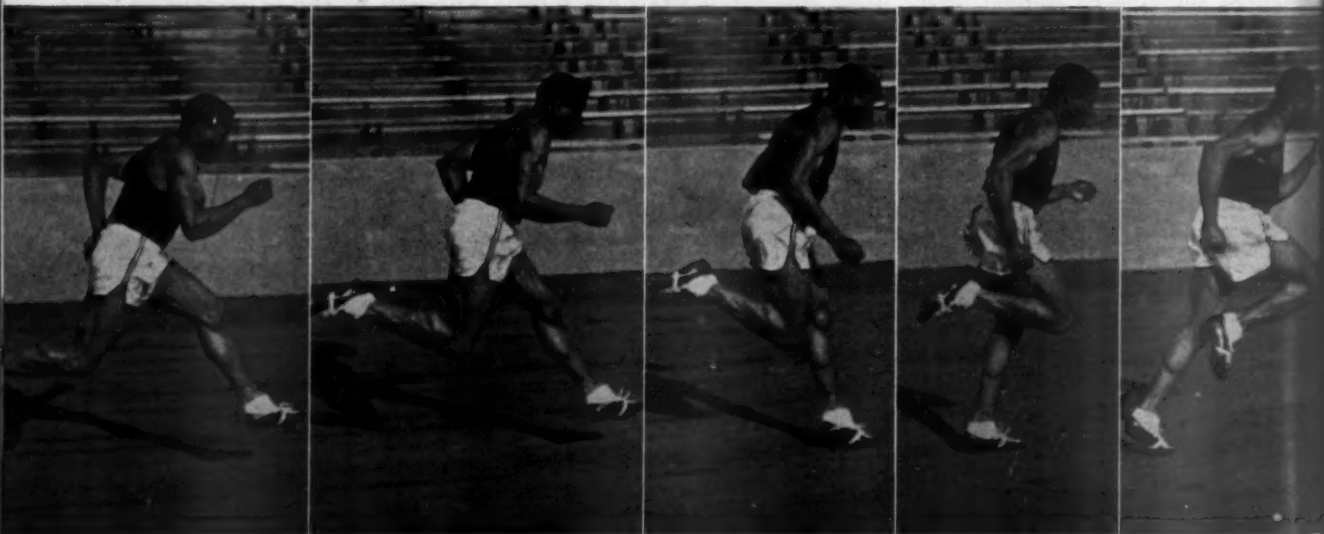
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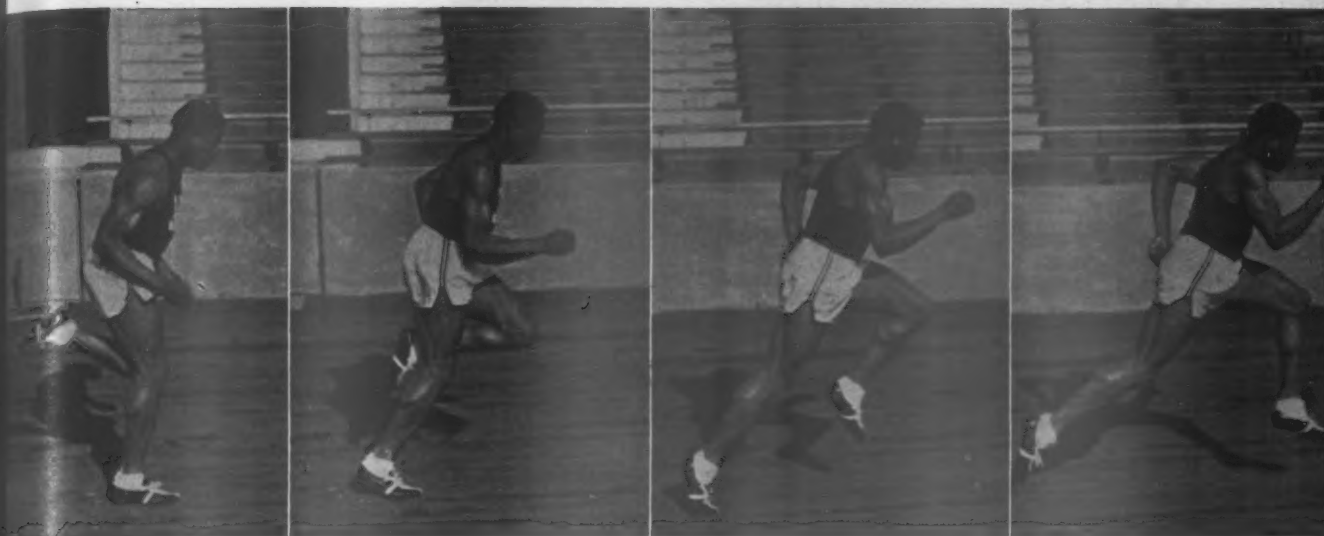
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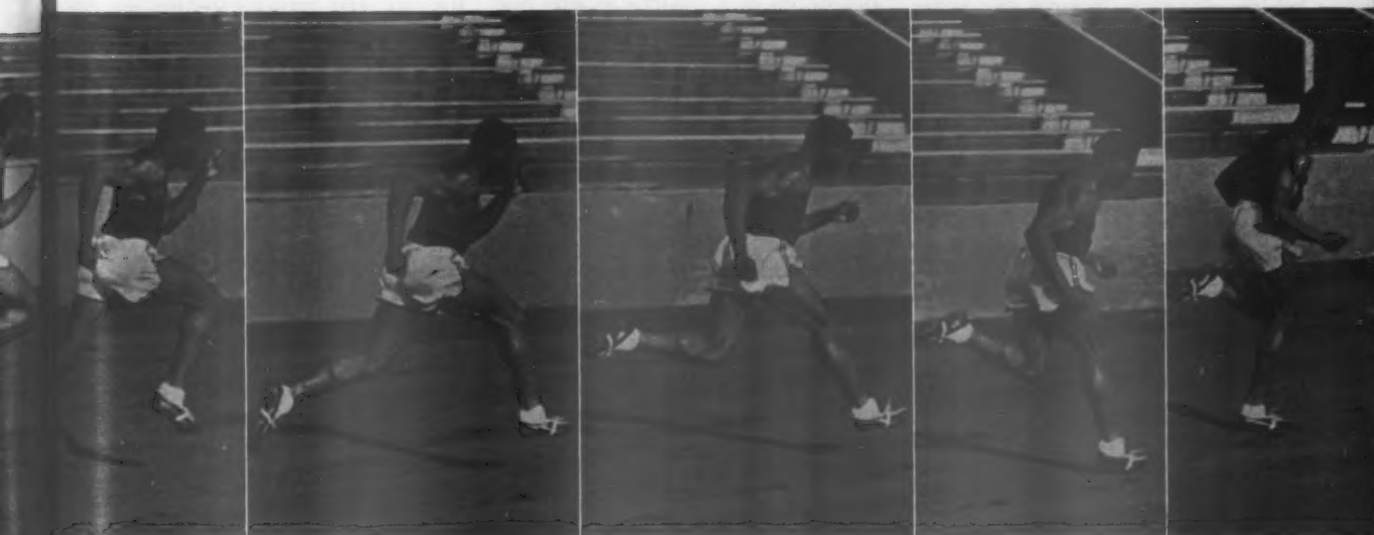
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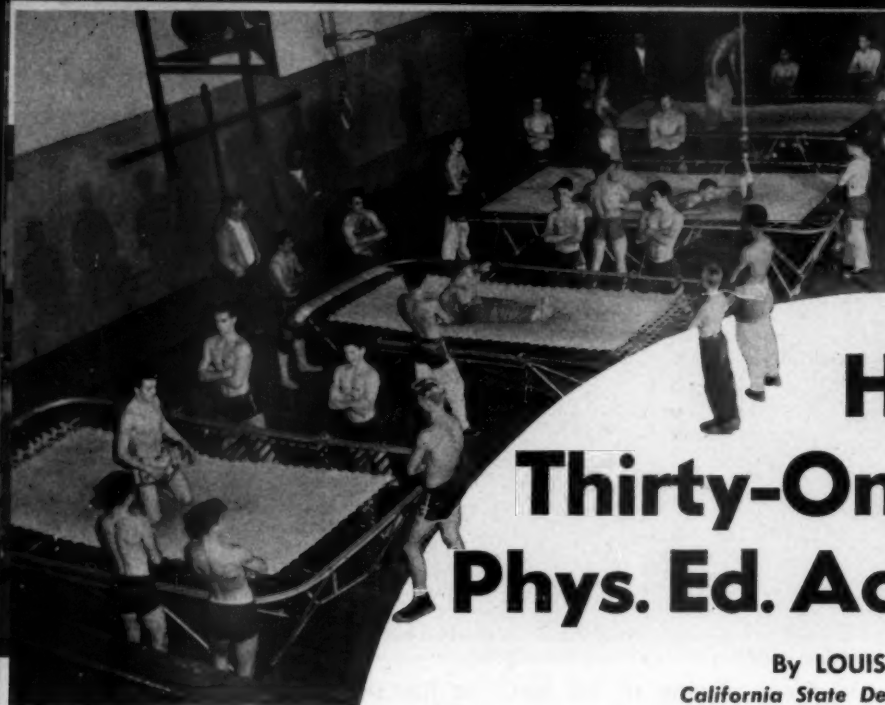


Illustration 1 shows a trampoline class and gives a good idea of class size. The loud speakers behind the baskets are always available for instructional use.

Sequoia High School Thirty-One Years of Phys. Ed. Achievement

By LOUIS E. MEANS

California State Department of Education

DURING the past decade in our nation a great deal has been written, and a great deal has been said about ideal physical education programs for boys. For many years we have enjoyed the privilege of studying secondary school programs all over the nation. In various states many schools have created fine programs. Unfortunately what might have been attempts at good leadership in some quarters have become a source of worry and doubtful acceptance by too many secondary school administrators in the United States. No doubt this feeling is due to the growth of an aristocracy in competitive and varsity sports which has often almost completely overshadowed the broader and finer concepts for which education through the physical was conceived. It is a pleasure, under these conditions, to report one of the finest physical education programs in the country; one that is rapidly becoming a model and the envy of thousands of leaders; and one that most educators would be skeptical about until they had the privilege of watching it in action repeatedly. This is the carefully planned, and more carefully executed program for *all* boys at Sequoia High School, Redwood City, California. We should also mention the fine program offered at that school for girls, but the subject of this series of two articles concerns only the boys.

The director of this fine program is Frank Griffin, an alumnus of the same high school, lifelong resident of the community, and now for thirty-one years its director of physical ed-

ucation. "Griff," as he is popularly known and called by friends, teachers, and students alike, has turned down all offers of what might be termed greater opportunities for service in larger places, and in colleges, because he loves his own community and has dedicated his life to the principle that his department can make a most significant educational contribution to youth and later citizenship. This kind of thinking has never permitted him to swerve from his objective that *every* boy is entitled to equal and inspirational leadership through the great variety of skills and activities which form the backdrop for the moulding of character and the development of a strong and healthy body, capable of standing the stresses and strains of a modern society. Nor has he forgotten the fact that in his thirty-one years of leadership almost every generation of high school boys has been compelled to see some military service.

Over 300 personal and highly complimentary letters from boys who graduated from Sequoia High and wrote back to "Griff" thanking him for his many contributions to their preparation are mute testimony of the practicality and utility of this program through which every boy must go. In fact, many of the boys now in school are sons of former students who know the value of such a program because they received all of its values. Many of these letters refer specifically to the fact that they owe their lives to training in swimming, life saving, rope climbing, rope safety, body conditioning, and the

ability to adjust themselves to almost impossible situations because of the values received in sports competition and group activity. They all stress the fact that they stood out in every group of trainees because of their superior strength, agility, endurance, and skills. These things do not come about because of high-sounding platitudes about the values of physical education often pronounced but seldom exercised in many quarters. They come about because of a well-selected and co-ordinated staff of experts who go about the day-by-day, and year-by-year assignment of carrying out a program that does exactly what it preaches.

During the war Frank Griffin visited some sixty-seven camps, bases, stations, and training centers covering seven branches of our armed forces. Here he found the youngsters—products of our schools. In too many cases he found these boys lacking in the major physical factors of endurance, speed, strength, agility, and co-ordination. Twenty to 25 per cent were unable to swim. Strength of arm and shoulder girdle was wanting. Endurance was often negative. Speed, agility, and co-ordination left much to be desired. It was not a pretty picture; yet the facts were undeniable. In discussing these points Griffin made the following comments, which are worthy of quotation here:

"Where had physical education failed? To begin, the boy who was out for the team was not required to participate in physical education otherwise, for such would be overemphasis, too wearing on these physi-

cally superior boys. Was this the honest reason? Or was the real reason the fact that the coach of the team wished these boys in a last-period athletic group that he might have additional time for team coaching? Boys out for teams were refused all-around training. They knew something of football, basketball, and/or other American leg sports, but all-around development was forgotten, overlooked, or totally neglected. Even worse, boys who were not on the team were, in all too many cases, practically thrust aside as unworthy of attention. A bat and ball were tossed to these outcasts and they were told to play.

"Those who needed training the most received the least attention. It was hoped that the 'window-dressing' of athletics might hide that which was denied the rank and file. The coach was concerned with his team, for the public viewed interscholastic competition through the stern spotlight of publicity and home town pride. But what of the high percentage of boys who were not on the teams? The armed forces called all young men to defense; those who were on teams and those who were not. Then the sad story came to light. Even former team members, the naturally physically superior, standing above the boys who had never been given a chance, in many cases knew only some skill of a particular game. Football stars were unable to swim, even to save their own lives. Swimmers possessed neither the strength nor the endurance to carry on in a land emergency. The cause of this failure of physical education is not entirely the fault of the coaches, it is the natural result of inefficient administration.

"The superintendent or principal who failed to provide adequate facilities; who assigned one class instructor nearly a hundred students; is the one primarily responsible. He possesses the authority, and should plan activities which would prove productive for all boys entrusted to his guidance. Yet, throughout the years there has never been any real conflict between interscholastic athletics and physical education. Together, each enhancing the other, they develop the physically well-balanced individual. The product of the men engaged in physical education should be the well-rounded boy skilled in many activities, strong in endurance, possessing agility and coordination. Our schools were constructed for all youth, and our physical education program should be

for all. But if the boy is to possess these qualities opportunity must be provided for such development."

The Sequoia High School program is built around the principles stated above. Feeling that many secondary school administrators and physical educators would like to study this exemplary program, we will attempt to present both the philosophies and objectives of it, and will include the tools, devices, and procedures used at Sequoia to produce the fine results apparent there.

1. *The program should be definite, interesting, varied and progressive.* Continuing the prime consideration of the welfare of all of the students, and understanding the varying degree of physical and emotional differences

LOUIS MEANS has had a long and notable career in athletics and physical education—a career which began in 1926 at Bluffton, Indiana, High School. In 1929-30 he served as director of athletics at Washington High School in South Bend, and for the next six years served as head coach of football, basketball, and track at East High School in Green Bay, Wisconsin. He then moved to Beloit College, serving in the same capacity for nine years. Following a period as director of physical education at the University of Nebraska he became Consultant in School Recreation for the State of California. In all of these capacities he has had occasion to study numerous physical education programs and describes here the Sequoia program which he considers the most outstanding.

in young boys, intelligent segregation is the first move. At Sequoia an annual medical examination is given all freshmen and juniors, all members of school teams, and all students whose previous records indicate need of periodic re-examination. Case histories indicative of normal fitness receive medical examination in two-year periods. These examinations certify those who may participate in regular work and those who should engage in modified work. All students placed in special physical education are required to have written statements regarding the nature and scope of activities permitted.

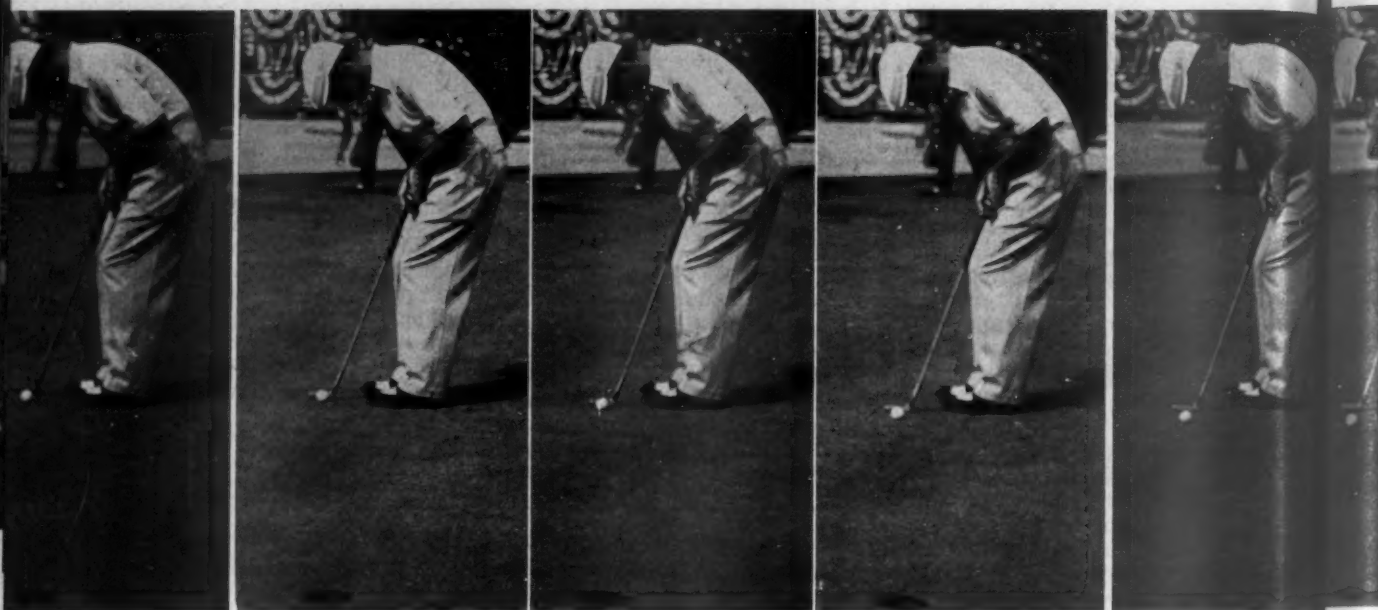
At Sequoia it is believed that 13 and 14-year old children are not capable of handling work which properly challenges the abilities of those who

are more mature and better qualified. Elementary understanding takes into account the fact that boys of maturity and ability find neither interest nor incentive in pre-adolescent procedures. All students are classified into three groups, largely predicated on age and accomplishment, and entirely separate programs of activities are arranged for them. As the boy advances in age and accomplishment he finds work that constantly challenges his new-found abilities. At Sequoia all members of the youngest group are called "Whites," and must wear white trunks throughout their stay in that category. The intermediates are called "Reds," and wear red trunks; and the older and more advanced students are "Blues," who wear blue trunks. All classes are organized and set up on this basis, with no mixtures permitted.

2. *The program should be analytical.* To determine the quality of the work done, and to check on the progress of the individual, two batteries of tests have been developed; physical fitness and game skills. Over the years quartiles and medians have been determined, and charts have been prepared so that the advancement of the boy may be known. These tests provide great incentive as well as indication of advancement. They are not difficult to administer and are not monotonous. When boys try and try again to better their accomplishments; when admission to the Roll of Honor is held in high regard; when pride of performance is strong; incentives are provided which no degree of discipline may approach.

3. *The program should prepare for the immediate and the future life.* While considering the interests and welfare of the boy, and the building of a firm physical foundation in youth, the years of maturity should not be overlooked. Every attempt is made to implant in the youthful mind a desire for physical well-being. The boy will respond best when he knows why he is performing — when instruction includes the reason for particular work. The Sequoia program acknowledges that the activities and games of youth are not always the interests of the mature man. Nevertheless there are many physical activities which may well remain with the individual throughout life and enable him to remain a participant in sports for a long time rather than become just a spectator.

Swimming is a healthful medium throughout the years. No boy is permitted to graduate from Sequoia High School unless he has the ability to
(Continued on page 52)



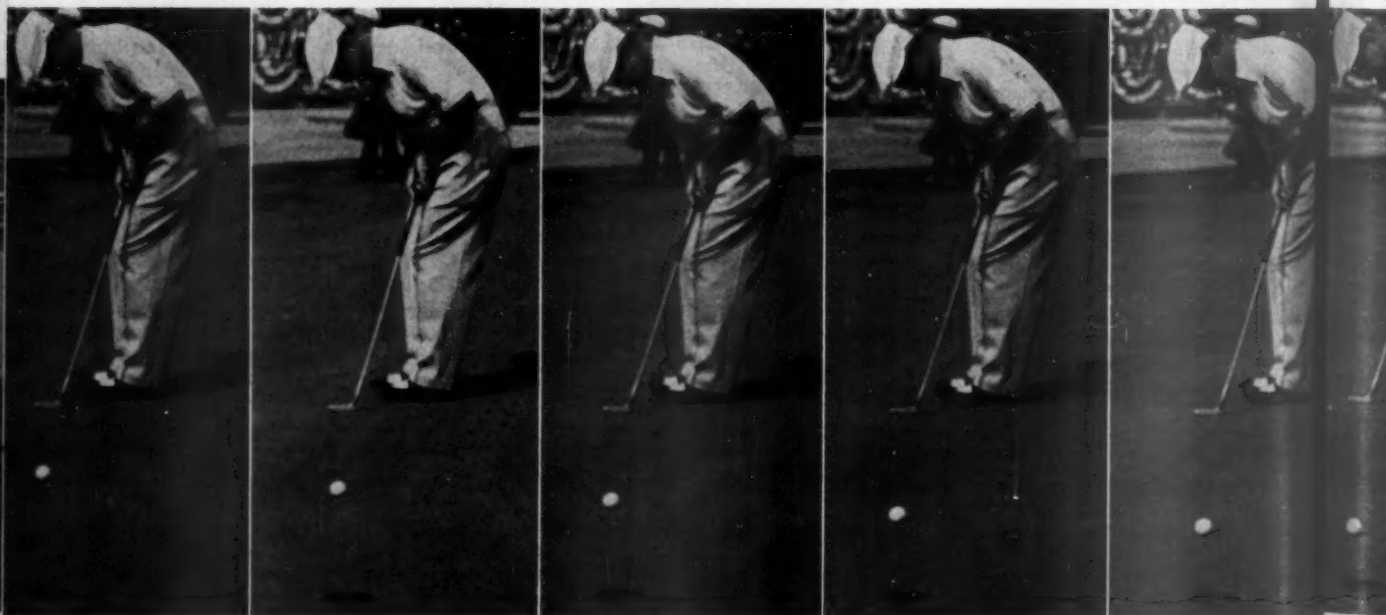
The Short Game In Golf

Putting

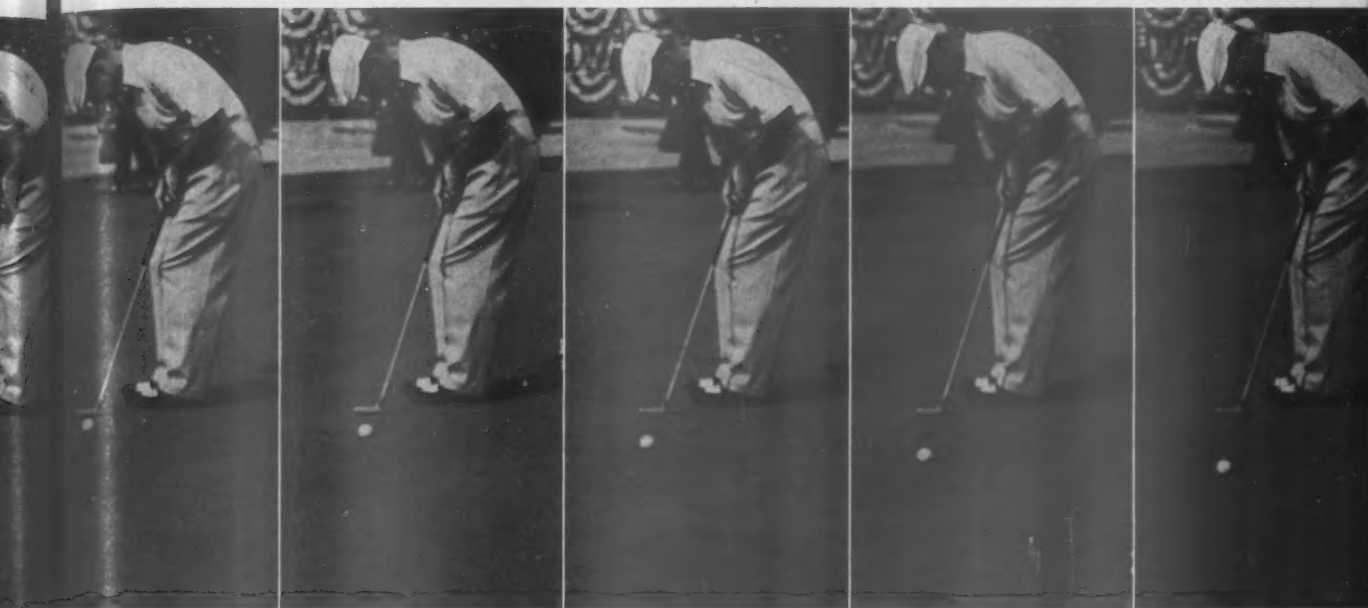
Demonstrated by LLOYD MANGRUM

Captions by HERB GRAFFIS, Editor,
Golfing and Golfdom Magazines

(Fourth in a Series)



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There are almost as many styles of good putting as there are good putters. Some are emphatically wrist putters, some are practically dead-wristed putters, moving the club with the shoulders and body.

Lloyd Mangrum is a much better than good putter. His style shows several points that are common to all first class putters. He gets a hold of the club that, to his own make-up, gives him a sensitive feel of the club. This not only assures him delicate control of the speed of the putt but enables him to do what a good putter must do — keep the face of the club coming to and past the ball squarely on the line of the putt.

Notice how close but not cramped

Lloyd's arms and hands are to his body. There is little possibility of the hands and arms venturing out of the proper plane of precise performance.

His eyes are over the ball. That's another almost uniform feature with all good putters. Selection of a putter of the proper shaft length and lie for the build of the player is an important element in this matter of stance.

The bent knees keep Mangrum from getting tight on his putts.

The backswing in this sequence was inadvertently omitted, so the series doesn't show that Mangrum, like practically all other good putters, keeps the club low and slow going back.

Note the position of his knees at

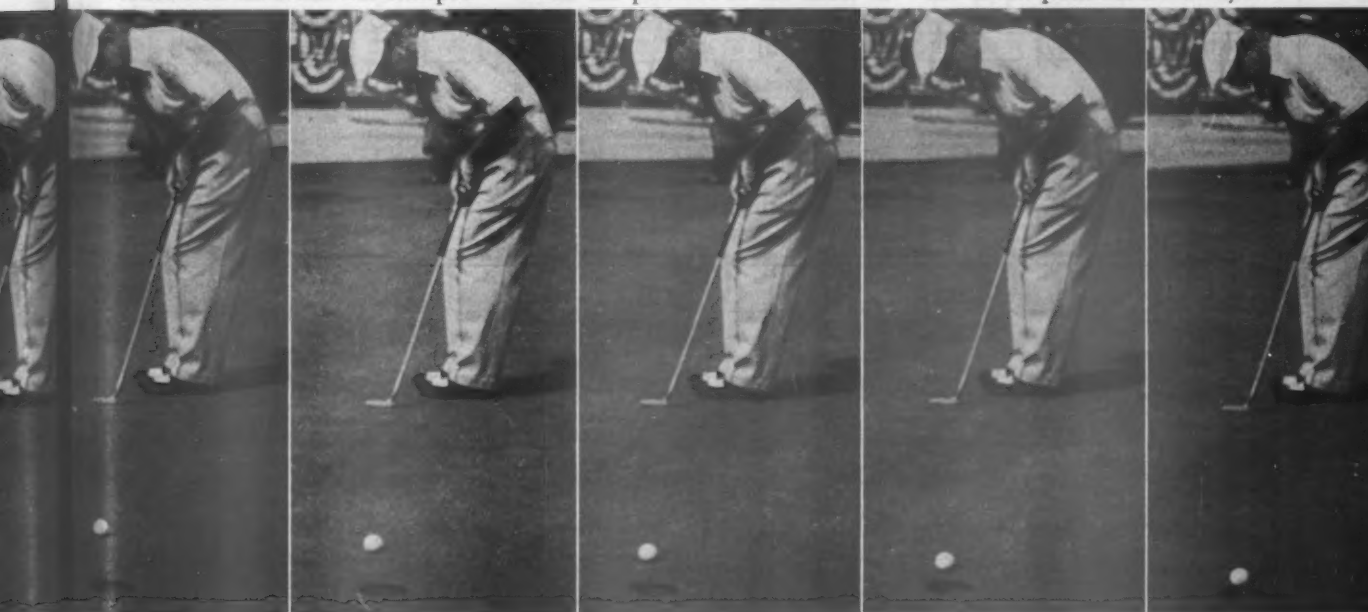
this point and as the putting action progresses. Then you'll see that Mangrum very definitely putts with his body.

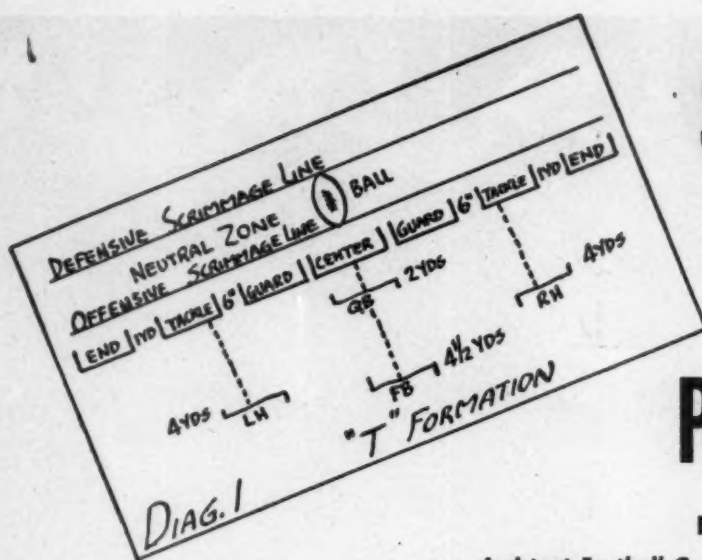
His steady head keeps the entire putting action centered!

All good putters hold their heads steady and keep a bead drawn on the ball until it's well away.

See how Lloyd's hands keep the putter face precisely square to the line of putt from before the ball is contacted until the putt is dropping into the cup.

Note how the sole of the putter is perfectly horizontal to the ground. If you have the toe or heel of your putter up from horizontal you either need a new putter or a new style.





Spot Marking To Perfect Timing

By JAMES A. PERRY

Assistant Football Coach, Lincoln Park, Michigan, High School

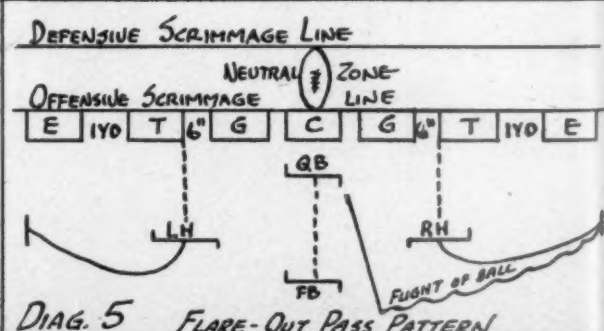
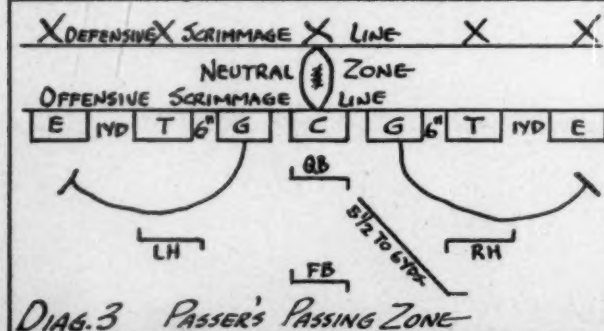
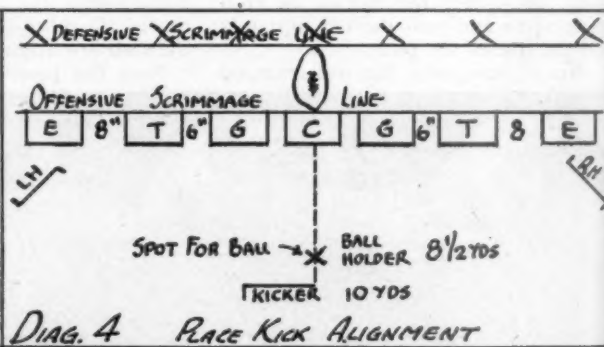
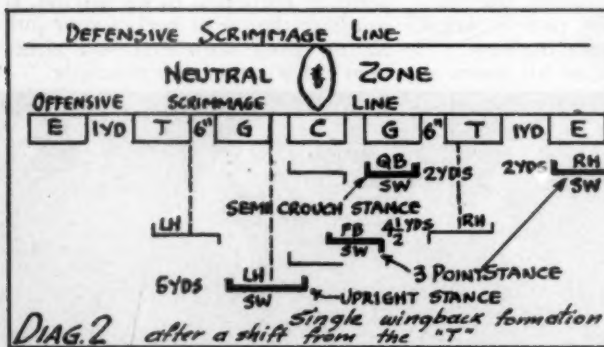
FREQUENTLY, during the early weeks of the football season the average coach is quite disturbed because of his team's indifferent performance. The record shows that his boys have lost the first game which in previous years has always been considered a breather. The following week the team carried out its assignments to a little higher degree, but the first victory of the season is still a desired goal, rather than an accomplished fact.

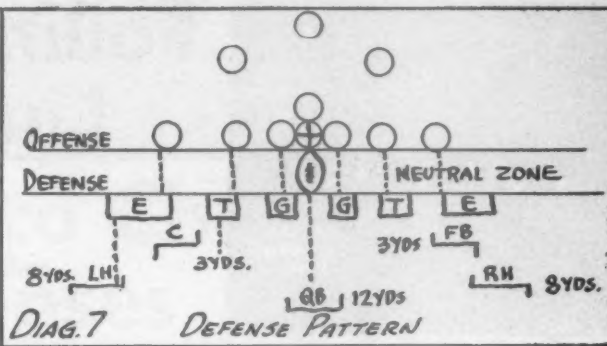
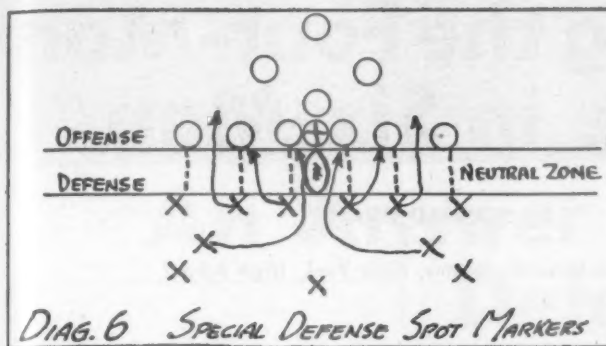
Fumbles by the backfield men, muffed passes by the receivers, and

illegal procedures by the linemen and the backfield indicate that the team is not functioning as a properly geared grid machine. If the elementary principles of football are not mastered; deception, power, and knowledge, in most cases, are not enough to overcome this deficiency.

An analysis of the situation is started, with the assumption that the coaching staff has conscientiously devoted itself to all of the fundamentals, and meticulously prepared and carried out its daily practice schedules and sessions.

Offensive and defensive game charts are studied and restudied, separate and combined meetings of the players and the coaches are held, game films are shown and examined by all concerned, and inventory sheets from the previous season are reviewed to re-evaluate the material which has been trained on the junior high, freshman and junior varsity teams. Every angle of this investigation results in the negative; and consequently, the coaching staff feels that it is searching for an invisible, but nevertheless, deteriorating element.





In many cases, the team's deficiencies are never discovered and corrected unless the alignment of the linemen and backfield men is watched closely. It is an established fact that good timing is the essence of a sound football offense and defense. A quarterback in the T formation who has not mastered his various pivot steps, or the defensive linebacker who has not learned to restrain himself from an early commitment as to his movements, is likely to play havoc with the entire pattern of the team. It is the opinion of a number of coaches that proper timing is never accomplished without proper individual player alignment.

One method, and it is not to be assumed that it is the only one, is to use what is termed "the spot marking system." We put this system into practice recently.

Designated areas on the practice field should be assigned and used by various offensive and defensive groups of players. These zones should be drawn up with a field-marking substance which is not injurious to either the eyes or the skin.

Spot markings should be placed in proper relation to the distance the coach wants the backfield men to be stationed from the line of scrimmage. In addition, if specified stances are preferred for the backs, markings pertaining to the proper alignment of the feet should be used. For example,

if the halfbacks in the regular T formation are required to stagger their inside foot to expedite particular footwork, in an attempt to attain a position which makes it possible for the quarterback to exchange the ball quickly and flawlessly, then small adjoining lines can be used (Diagram 1).

Guesswork should not be the determining factor when laying out the field with spot markings. If the single wingback system is the type of

JAMES A. PERRY learned his football under Stu Holcomb of Findlay College. Following graduation, he coached at St. Ignatius High School in Cleveland before going to Lincoln Park. This is the fifth article that Perry has prepared for us. The previous four dealt with phases of line play.

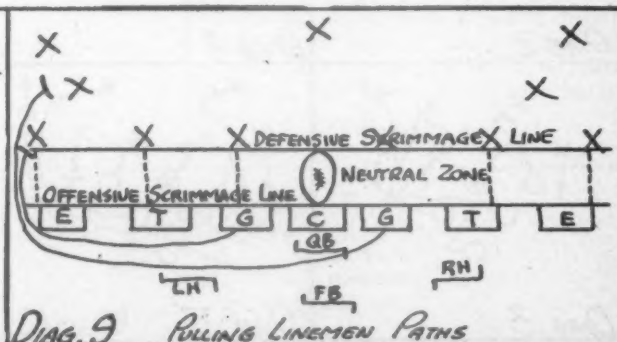
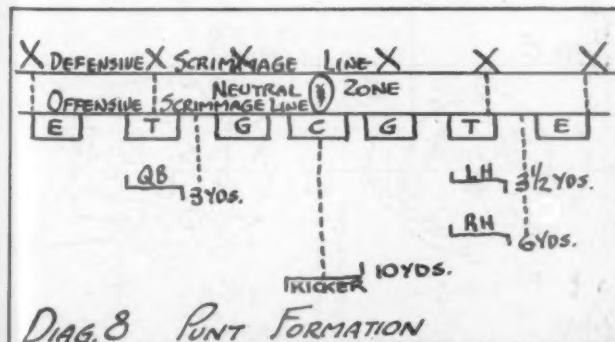
offense to be employed, the spots to be marked should be definitely established only after the correct measurements have been made with a rule or tape. If the tailback's position is to be five yards from the line of scrimmage, as it is in some single wingback offenses, the markers should be carefully placed not only in depth, but also in proper alignment, such as, behind the guard or

directly behind the seam between the center and the guard to the strong side (Diagram 2).

Other spot markings may be employed to perfect proper spacing and timing in regard to a passer's designated passing zone, (Diagram 3); place kicking position, (Diagram 4); passing patterns, (Diagram 5); special defenses, (Diagram 6); entire team defensive placement, (Diagram 7); the punt formation, (Diagram 8); and the paths of linemen who must pull out on various plays, (Diagram 9).

A coach may work out and diagram on his practice field any patterns and fundamentals that he feels are necessary to meet his personal needs. In the event inclement weather makes it necessary for the team to practice in the gymnasium, the appropriate markers can be made on the floor with chalk.

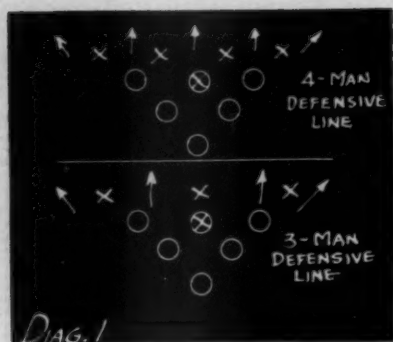
If the "spot marking" system appears very elementary to some coaches, then the purpose of this article has been accomplished because it was intended to be basically easy to carry out. Records of past games will show that many an important encounter has been lost because an elementary principle, such as, a backfield man being illegally in motion at the snap of the ball, or a defensive linebacker being in a position other than one designated by the coach, has been forgotten or violated.



Foiling the Four-Man Line in Six-Man

By DONALD GRANT

Athletic Director, Dexter, New York, High School



THE four-man defensive line in six-man football has proved troublesome to many six-man offensive attacks. Some teams use a four-man line anywhere on the field, while others use it only when pressed deep into their own territory. It seems to be a standard goal line defense and its effectiveness has been demonstrated many times.

Teams attempting to oppose successfully the power of the four-man defensive alignment via a passing attack have met with small success. The passer, besieged by the four linemen, is either powerless to get his pass off or is so badly hurried that his throw goes astray. We have found that if a planned running threat is coupled with a passing attack, it is possible to move consistently against a four-man defensive line. The running threat used against the defense must be carefully planned because the blocking assignments will be somewhat different than those employed against the usual three or two-man defensive line.

Here at Dexter High School, we have set up a series of plays for the

quarterback to use against the four-man line. The basic idea in these plays is to split the defense and keep the defensive players away from the point of attack. Rather than try to go

DONALD "DUTCH" GRANT graduated from Springfield College in 1941 where he was an All-New England tackle and lacrosse player as well as New England light heavyweight wrestling champion. Following overseas service with the infantry he became athletic director and coach at Dexter. Since 1946 his teams have won 15 championship awards in football, basketball, and baseball. He has lectured at the New York State Coaching School on the six-man game.

over the defensive players or attempt to move them, we go between them.

As is shown in Diagram 1, we have five holes or areas from which to attack the four-man line; whereas, there are only four points of attack against a three-man line.

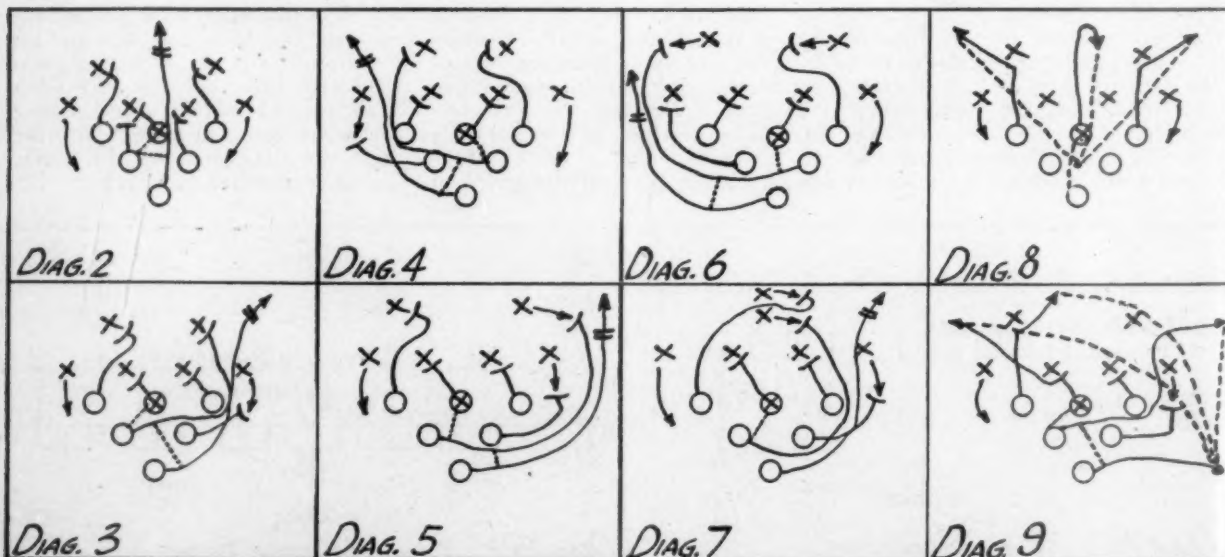
Our basic offensive formation is the short punt which is normally set up for a three-man defensive line. However, by making minor adjustments in the blocking assignments, we are able to handle the four-man defensive line. Diagrams 2 and 3 show our basic running attack against the four-man line.

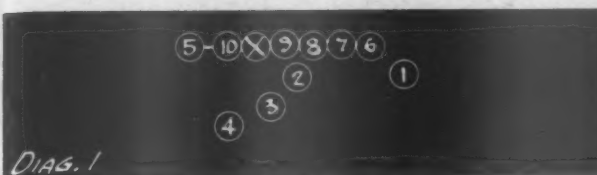
With teams of equal personnel, we have found the weakest spot in the four-man line is straight up the middle (Diagram 2). Here, the defensive ends, by driving in too deep, are allowed to trap themselves. Or, if they restrict themselves to sliding along the line of scrimmage, they will be screened out of the play. If they should drop back the plays shown in Diagrams 3, 4, 5, and 6 will work very effectively.

Some teams that use a four-man line vary the position of their backers-up. This maneuver resembles a 4-1-1 defense, but the same principles may apply against the 4-2 with the secondary blocking adjusted (Diagram 7).

Now, having established a run-

(Continued on page 62)

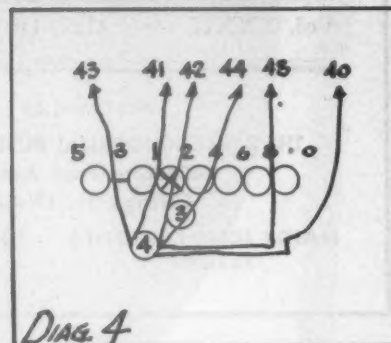
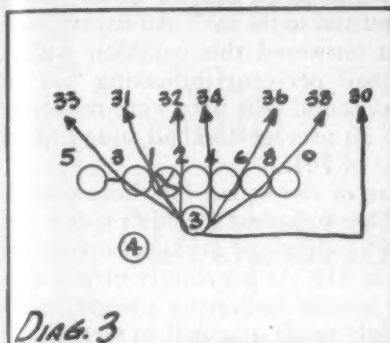




An Answer to Changing Defenses

By MARTY FISCHBEIN

Florence, N.J. Twp. High School



ONE of the most pertinent problems facing our football coaches today is how to meet changing defenses. In attempting to solve this puzzle many of us are losing sight of a very important factor; namely, the individual's learning capacity. We attempt to indoctrinate our young football players with material that has been used successfully by college teams. In most cases this procedure is playing right into the hands of our opponents. High school boys are not capable of assimilating all of the things a college player can handle; therefore, it is educationally unsound to burden them with an abundance of plays and possibly three or four assignments for each play. By shackling a team with more assignments than it can handle the entire attack suffers.

It is not the purpose of this article to criticize any system, but to present a different approach to meeting changing defenses.

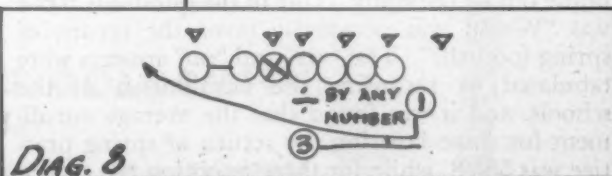
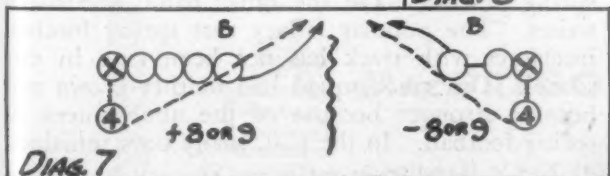
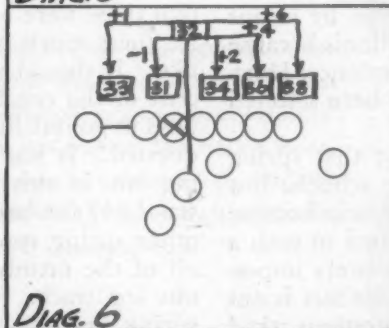
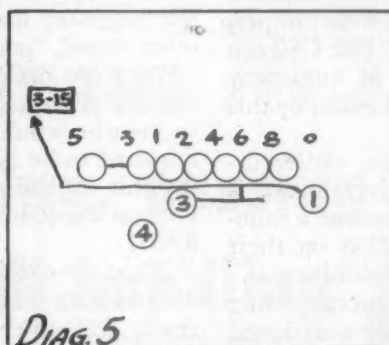
The underlying philosophy of this system is based upon the premise that in order to block correctly, a boy must have a suitable angle on his opponent. The various systems employed by coaches all use this theory, knowingly or not. In designing our

plays we assume the defense will play in an orthodox manner. If they play according to Hoyle everything is fine—but if they do not, this is where our troubles begin. This switching of the defense to the unexpected causes poor blocking angles and handicaps our blockers. Rather than have our boys block from disadvantageous positions, we employ a system that allows our quarterback to change the play after he has left the huddle and observed the opponents' defense. To accomplish this, we

train the quarterback to notice the uneven alignments of our opponents; then through the use of some minor addition or subtraction he may change the hole to his own advantage. This is the first step in four simple maneuvers that are made possible by utilizing a signal system which stresses simplicity.

All of our offensive players are numbered, with the exception of the center, as is shown in Diagram 1. This enables us to include linemen as ball-carriers without changing our basic numbering system. The holes between our offensive men are numbered from the center out, using even numbers on the strong side, and odd numbers on the weak side (Diagram 2). Our play numbers tell the boy the entire play maneuver. The first digit denotes the man receiving the ball from the center. The last digit is always the hole. Therefore, play No. 32 would be the No. 3 back carrying through the No. 2 hole (Diagrams 3 and 4). We adhere to the same principle on reverses and hand-offs by adding extra digits to denote the added man or men handling the ball. Our reverse play would be numbered 3-15 or the No. 3 back hands

(Continued on page 45)



The ATHLETIC JOURNAL

Nation-Wide Amateur Athletics

Vol. XXXII May, 1952 No. 9

Published by

THE ATHLETIC JOURNAL PUBLISHING CO.

6858 Glenwood Avenue

Chicago 26, Illinois

MAJOR JOHN L. GRIFFITH
Founder

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Report on Spring Football

IN the summer of 1949 the Illinois High School Athletic Association voted to outlaw spring football practice. The legislation became effective as of the summer of 1950; consequently, the spring of 1951 was the first season during which most of the member schools of the Association were not permitted to carry on spring practice. The Chicago schools maintain a certain amount of autonomy within the Association and were not affected by this move.

The abolishment of spring practice, while currently much in the news on collegiate levels, is nothing new in the scholastic field, because a number of state associations have had edicts on their books for a period of several years prohibiting it.

In an effort to find out what the general feeling might be in regard to spring practice we questioned the Illinois high school football coaches by means of a mail questionnaire. We chose Illinois because of the aforementioned one year's experience. However, any number of states could have been selected for a study of this nature.

A number of coaches pointed out that spring football practice was fine for larger schools, but could not be conducted in smaller schools because it detracted from the other spring sports to such a degree as to make it almost, if not entirely impossible, to conduct the other sports. This fact is not borne out by the study. One of the questions asked was "Would you personally favor the return of spring football?" The "yes" and "no" answers were tabulated by recording the enrollments of the schools, and it was found that the average enrollment for those favoring the return of spring practice was 566.8, while for those opposing the return

the average enrollment was 562.5. The smallest school favoring a return of spring practice had an enrollment of 97, while the smallest school opposing the return had an enrollment of 85. The largest school favoring the return of spring practice had an enrollment of 2,500, and the largest school opposing it had an enrollment of more than 3,000.

In order to form a basis for further questions, this question was asked: "Formerly, if a boy on your football squad wanted to go out for other spring sports was he permitted to do so?" An overwhelming 95.1 per cent answered this question with a "yes". For the small per cent indicating "no" as their answer it was found that they were moderate sized schools with an average football squad of 85 and an enrollment of 704.

The average size of the squad for those schools which permitted boys to go out for other sports was a fraction under 69, while the average enrollment of these schools was 549. As previously mentioned, the percentage of schools indicating a negative answer was exceedingly small, so small in fact, that a school with an exceedingly large enrollment or a large squad would distort the average. Nevertheless, it may be seen that this unwise practice found more adherents in the larger schools than in the smaller schools where the man power situation would be more acute. Two of the negative answers were qualified in this manner; one coach stated, "It was suggested that he be out for football," and the other stated, "part time."

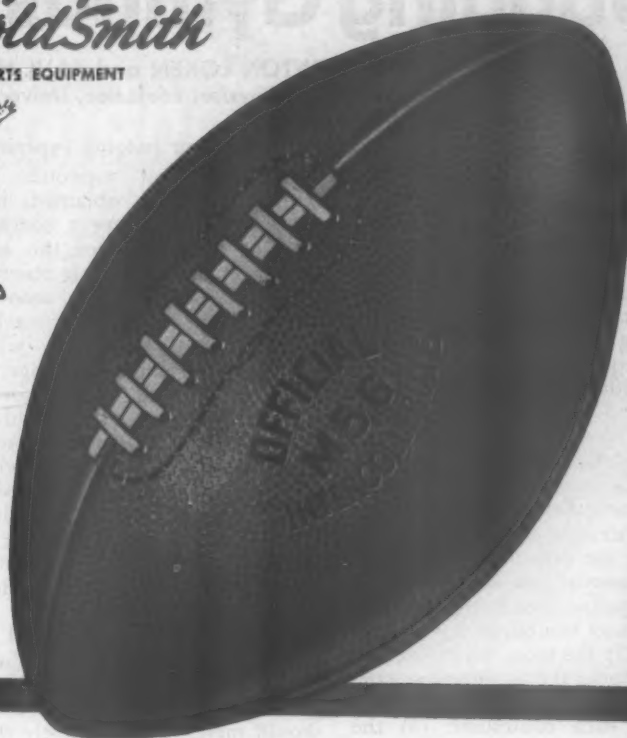
We were anxious to find out how many boys on the football squad had gone out for the other spring sports who would not have done so had they been required to be out for spring practice. Before doing this we had to determine the total number of boys on the football squads. This was found to be 8,667.

Then the coaches were asked to state the number of boys from their squad who were out for baseball, track, and other spring sports, keeping in mind that these were boys who would not have gone out for these sports had they been out for spring practice. It should also be kept in mind that 95 per cent of the coaches had formerly permitted their boys to go out for other spring sports if they so requested. It was determined that the number going out, in this manner, from the football squad was 1,343 for baseball; 2,671 for track; and for the other spring sports 352. Eleven coaches require all of the members of their football squad to go out for track. One of these schools never had spring practice. On the other hand, one coach writes, "The popular fallacy that spring football interferes with track has not been true in our school. Our track squad had neither grown nor become stronger because of the abolishment of spring football. In the past, many boys remained

(Continued on page 63)

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Judging Gymnastic Meets

By **NEWTON LOKEN** and **PAUL HUNSICKER**

Department of Physical Education, University of Michigan

IT is a generally accepted fact that the key to a good gymnastic meet is good judging. Without this the fans, coaches, and gymnasts become dissatisfied. We realize that in some instances the judges have erred in giving certain scores, but it was apparent that each judge was conscientiously doing his job to the best of his ability. Frequently a particular judge is singled out for criticism because he supposedly disagreed with his fellow judges. With this in mind we obtained the detailed results of the 1950 National Collegiate Gymnastic Meet and examined these results thoroughly. The procedure used for this study was to use the official results of the following events: side horse, parallel bars, trampoline, horizontal bar, flying rings, and tumbling. These data included: (1) the score which each of the five judges gave a competing gymnast; (2) the sum of the middle three scores for each contestant; (3) the order of placement of the performers.

Intercorrelations of the five judges' scores were determined for all six events. The number of times a judge scored men high or low was also tallied in an effort to determine whether a particular judge was habitually high or low. There was some duplication here in that occasionally two judges would have the same low or high score. In these cases both were credited with an "extreme." The basic data were also re-scored, using the sum of the points awarded by the five judges, rather than those awarded by the middle three. The placement for the first six men in each event was compared with placement under the traditional system.

A full examination of the figures showed the following results: The gymnastic judges for the 1950 National Collegiate Gymnastic Meet agreed with each other to an acceptable degree. There is only one correlation below .800 and there are 50 relationships of .850 or higher. The remaining nine objectivity coefficients fall between .800 and .849. The consistency of the judges would probably compare favorably with subjective opinions of five experts rating any other physical or motor trait. It was felt that the five judges selected for judging assignments in this N.C.A.A. meet were experts in respect to their experience as gymnasts, and also in

regard to their judging experience.

Realizing that topnotch judges cannot always be obtained, it may be difficult to secure a comparable level of agreement for the average dual meet. An interesting observation shows that the greatest amount of agreement in judging was reached in the horizontal bar event; whereas, the smallest amount of agreement was in tumbling. There could be many reasons for this. Could it be that all of the judges had actual experience in the high bar; whereas, only two or three had tumbled, thus the differences in their thinking; or could it be that the high bar lends itself to objective thinking; whereas, tumbling does not? What do you think?

The second item considered in the analysis of the meet centered around the number of times a particular judge's rating was high or low. We should mention immediately that no one judge stood out from the other four in being consistently high or low. Some interesting outcomes for each apparatus were observed. For instance, on the side horse Judge 2 tended to rate low and Judge 1 rated high. Without mentioning names and involving personalities we see that in the background of these two men there may have been reasons for their judging. Judge 1 was extremely good on the side horse; whereas, Judge 2's specialties were the high bar and parallel bars. Because of his background

Judge 2 may not know as much about the side horse and thus be hesitant about giving a high score. The reverse may be the case with Judge 1 in awarding high scores.

Still this picture becomes confusing when we compare the judges on the parallel bar event. It was found that Judges 2 and 5 scored low, while Judge 3 was high. In this particular case both Judge 2 and Judge 5 were excellent parallel bar men during their school days, and Judge 3 was more of an all-around man with possibly less experience on the parallel bars. Also, in tumbling, we find that Judge 4, who was an outstanding tumbler in his school days, tended to be more critical than the other judges in that his scores were consistently lower than those of the other four judges. In this event no judge stood out as being the high scorer. This complicated picture definitely suggests that the judge's personal experience and ability on a particular piece of apparatus could not be taken as a guide to his judging of an event.

The general practice of employing five judges and then discarding the scores of the high and low judges was challenged. Since the judges are supposed to be experts, and this is probably more generally the case for the large national meets than for our regional dual meets, it appears to be irrational to ignore the ratings of two judges simply because they happen to be high or low. If the coaches feel that there should be five judges at a meet, perhaps all five should be used in determining a winner. In looking over the correlations, it was found that at least one outstanding thing is accomplished by using all five judges, and that is the elimination of many ties. In checking through the results by using only the middle three scores, we find that we have three ties on the six events. Many ties are eliminated by using all five judges. The two-way tie on the side horse and the three-way tie on the horizontal bar are dissolved, and the gymnasts automatically assume an "untied" position in the placing order.

It is interesting to note that when five judges were used, none of the first place and second place men's positions were changed. Also, in all

(Continued on page 43)

NEWTON LOKEN and Paul Hunsicker collaborated on this article. Loken is familiar to our readers since he has written a number of articles for us. His most recent article, "Advanced Stunts on the Parallel Bars," appeared in the January issue. Hunsicker graduated from Syracuse University in 1939, received his master's from Springfield College in 1941, and his doctor's degree from Illinois in 1949. During the war he supervised and administered the Air Force Physical Fitness test to thousands of men. He was a member of the research group which conducted tests on the 1948 U. S. Olympic Swimming Team.



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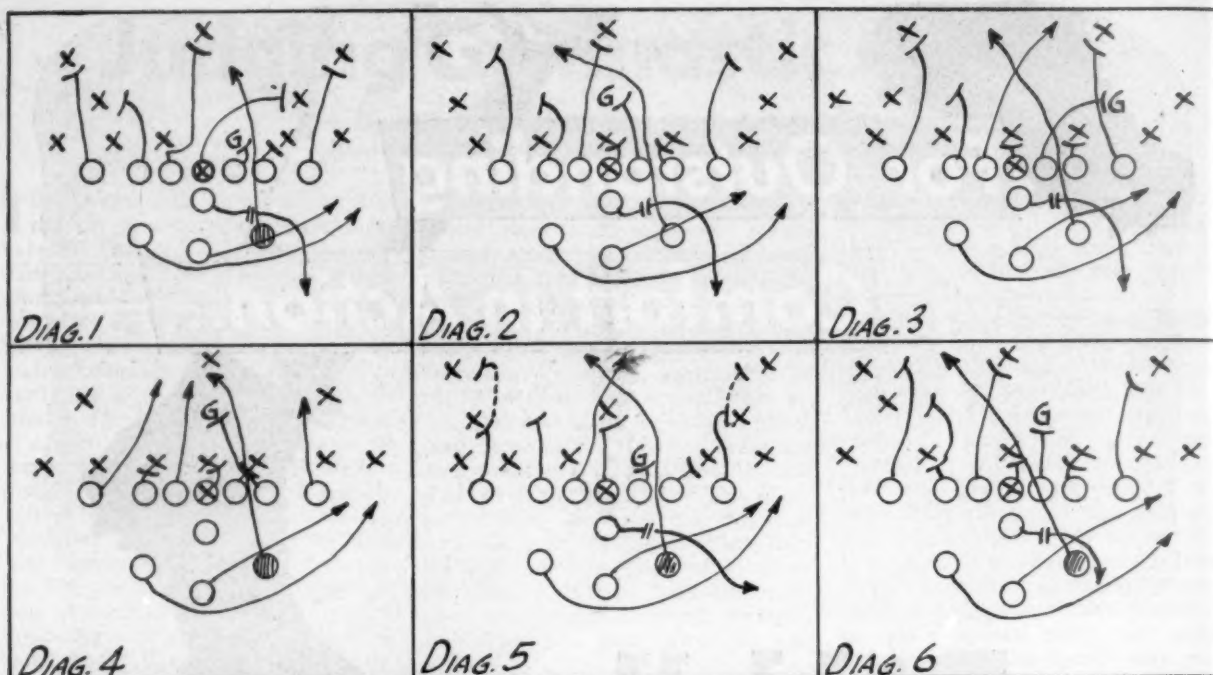


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Problems in Coaching Preparatory Schools

By JOHN L. MADDOX

Assistant Football Coach, Rutgers University

THE essential problem in coaching preparatory school football lies in the large turnover of playing personnel each year. Unlike high school squads where the boys travel along a normal four year course, most preparatory school teams are made up of a sprinkling of old boys and a number of one-year students who come in either as seniors or as post-graduate students. While many of these boys have played football in high school; they usually remain in preparatory school for just one year. Hence, each year, the squad loses a large number of its older boys whose places must be filled by a similar group of one-year newcomers. This turnover, coupled with the inexperience that a coach must contend with each year, creates the basic problem of the preparatory school coach. Furthermore, it creates other problems that must be met and overcome if a successful season is to follow. How well all of these problems are met will spell, to a great extent, the difference between victory and defeat.

Recognizing the basic problem, then, we will list the attendant problems and suggest methods of remedying them. These remedies have been tried and found successful over a period of time.

Problem No. 1—Condition. This is a relatively simple matter; therefore, it is often overlooked. Most preparatory schools, particularly of the boarding school type, have an advantage here. The boys who attend schools of this type observe a definite, well-regulated way of life. Every coach knows how valuable this may be in training.

Secondly, being generally unhindered by league or state regulations, the practice sessions may start at least two weeks prior to the opening of school. This additional time allows two practice sessions daily, and plenty of time for chalk talk. It further al-

lows time to condition the players properly. Plenty of distance running in the earlier stages to develop stamina, and plenty of wind sprints later on to develop speed are the order of the day. If this running is coupled with well-planned calisthenic periods, there is no reason why a coach cannot bring the squad into good shape. This is going to pay off later. As a rule, there will not be two platoons so this first group will have to be conditioned to go all the way.

Problem No. 2—Placing the Boys in Positions. Generally, a coach has had considerable experience in placing boys in positions. However, within limits, he will want the best eleven players on his A squad. By this time the players have had enough scrimmage for the coach to know who the men on the squad are to be. He may now forget about scrimmage, select the best eleven players, and juggle them around to fit into the eleven slots.

A good selling job is necessary at this point because some new fullback may not care to play guard. But, if the coach has done a good job of selling, he will wind up with the best eleven players on one squad.

Problem No. 3—Position Play. Now,
(Continued on page 50)

PRIOR to his return to Rutgers, his alma mater, in the fall of 1950, John Maddox compiled an enviable record in preparatory school circles. This article deals with the problems encountered in coaching prep teams. Maddox started his coaching career at Valley Forge Military Academy and then moved to Bullis School. His 1947 Bullis team holds the honor of being the only secondary school to defeat both the Army and Navy plebes in the same season.



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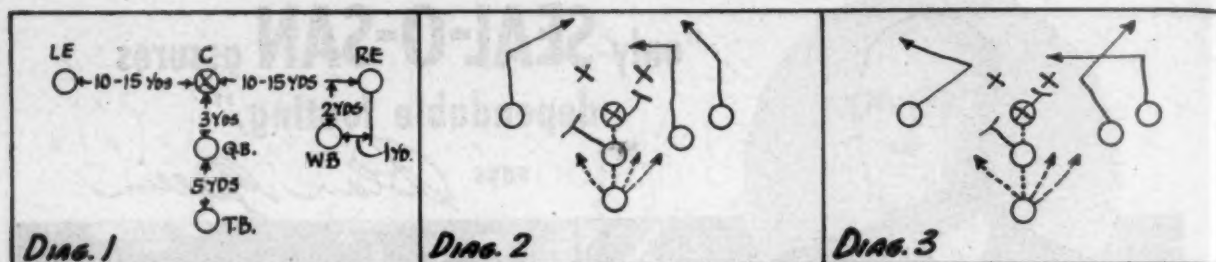
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The Six-Man Optional Spread

By ANDREW W. GRIEVE

Athletic Director, Van Etten, New York, Central School

ANDREW GRIEVE is completing his second year at Van Etten where he coaches football, basketball, and baseball and teaches physical education. He has coached six-man football for several years and found the formation described in this article very valuable in certain situations.

AT the beginning of the past football season our coaching staff decided that due to the type of material we had on hand our basic offensive formation would be the straight T formation. We had a pair of fleet-footed halfbacks, and a fair passer and good ball-handler for our quarterback. It appeared as though our offense was fairly well set. But, as will often happen, injuries to key players early in the season reduced the effectiveness of our formation. We had a number of replacements who, although they had used the T formation as second team members, were not experienced enough in its intricacies to make it function effectively.

Our problem was obvious. If we were to present any offensive threat at all we must have a new formation which could be taught in a hurry. After racking our brains and experimenting with the junior varsity squad we struck upon the spread

formation which seemed to fit our needs exceptionally well. We did not drop the T formation entirely, but the spread, in our particular situation, did become our main offensive threat.

The first game in which we introduced the spread was a junior varsity game. Actually, the boys had only two plays from the spread and these were options. The spread was very successful, and our varsity team proved it to be so as the season advanced.

Diagram 1 shows the fundamental position of our players. The center, quarterback, and tailback line up on the ball. The quarterback is three yards behind the center, and the tailback is five yards farther back. The ends spread approximately ten to fifteen yards from the ball on each side, their exact position being determined by the location of the ball in relation to the sidelines. The wingback lines up two yards behind either one of the ends, and one yard inside of him. In all of these diagrams the wingback has been placed on the right side, but he is as effective from either side. This spread, by the offensive team, usually results in an equal spread by the defense. When the ball is snapped, the defense must retreat with the deep pass receivers or stand the danger of having a long pass completed.

Since the tailback receives a clear

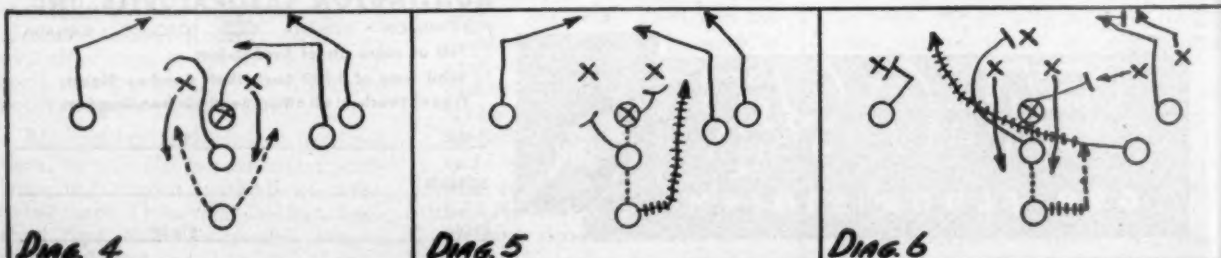
pass from the quarterback he may either run or pass. The option he selects is determined by the defensive maneuvers he meets. Since, in six-man football, each player is eligible to receive a pass, every man must be covered, thereby reducing the defensive pressure on the ball-carrier. This is why the spread is more effective in six-man football than in eleven-man. With two or, sometimes, even only one effective block, the ball-carrier may shake himself loose for long gains.

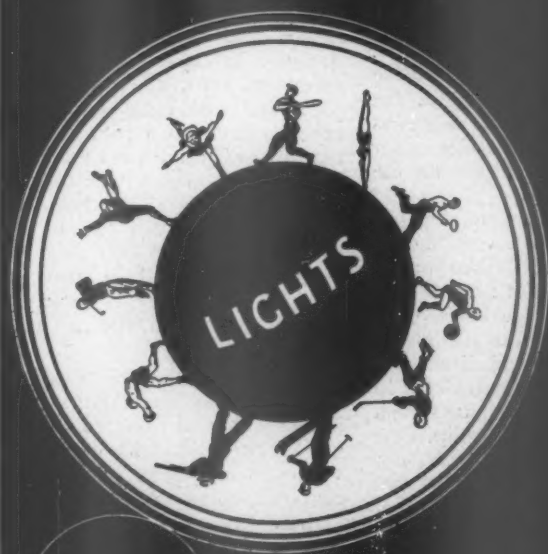
The defenses which we met varied, but fundamentally they played us man-for-man. The best defense thrown against us was a delayed charging line, which forced our ball-carrier to make the first move. However, the delaying linemen were good targets for our blockers. During the entire season we did not meet a truly effective defense for this formation.

Diagram 2 shows one pattern which the pass receivers may follow. The two ends go deep and cut to the middle, while the wingback goes shorter and cuts sharply to the middle. These three players are the deep receivers if a pass is forthcoming. With these three receivers pulling the defense back, the tailback may take advantage of the defensive weakness and run.

Diagram 3 shows another pattern

(Continued on page 47)





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A Unique Type of Championship The Flight System

By W. HUGHES DAVIS

Tennis Coach, University of Arkansas

WHEN we started to play tennis, tournaments were of the one-bracket type with all of the players placed together in one large group. We will never forget the disappointment which came over us in our first city championship. After losing badly in the opening round of play, we realized we were playing someone distinctly out of our class. We had been playing but a few weeks, while our opponent had been practicing for four years. The game would have been more enjoyable if we had been able to play someone nearer our own ability.

It was a few years before we were able to do anything about preventing such one-sided affairs. But when we began to supervise sporting events, we sought earnestly for some system that would enable younger players to avoid the humiliation we had known. Handicap tournaments, double elimination championships, and novice events—we tried all of them. It was found that handicap tournaments were useful for one-day special activities only. Double elimination championships were too lengthy and required too many courts. Novice events appealed only to the less skilled participants. We were looking for the type of tournament which would be attractive to all ability groups, but none proved to be as satisfactory as the single elimination tournament we devised and which employed the flight system idea. This system has also been applied to other sports and the results have been favorable. For explanation purposes, we will describe the system as it has been operating at the tennis club where we teach during the summer.

We might mention here that this type of championship is similar to the average golf tournament in which the players are classified into flights according to their ability. In this way, one entrant competes with another player who has a similar degree of skill. The winners of each flight are the announced champions of their divisions, and they do not meet one another in any kind of play-off. At the conclusion of the entire championship, attractive awards are presented to the winners and runners-up in all flights.

The club ladder is the basis for determining both the number of flights and the assignment of players to the various divisions. This ladder is divided into three flights of twelve positions each: the championship flight (first twelve); second flight (second twelve); and third flight (third twelve). The same number of flights is used in the tournament. In order to qualify for the tournament, a player must be ranked on the ladder. When entering the contest, the competitor signs in the same flight in which he is presently ranked. If all of the ranked players do not wish to compete in the club championship, the tournament committee may complete the unfilled bracket with entrants from the next lower flight; or the committee may decide to allow the grouping to remain as it is, and start that flight into action with fewer than twelve participants. With everyone in the tournament ranked, the task of seeding is relatively easy.

The tournament committee draws up single elimination pairings for each flight and follows the official rules except for one minor change. Even though there may be only twelve or fewer players in each flight, the committee often seeds as many as four. This seeding is excellent for publicity and adds interest to the tournament.

Because the flight system depends to a great extent on a club ladder board, our club has worked out a rather inclusive set of rules for ladder activity. A challenge board committee formulates all rules and makes decisions on any unusual situations. A few of these rules are significant in their relation to the flight system used in the club championship. One rule states that a player is not obliged to accept more than two challenges each week, only one of which may be from the same person. This rule allows each player a chance to challenge others so that he is not continually accepting challenges. Another rule specifies four days as the length of time in which a player is expected to accept a challenge. Still another rule makes provision for the newcomer to gain an appropriate spot on the ladder. One who is unranked may challenge any person for his

HUGHES DAVIS graduated from Guilford College in 1941, and since that time has been actively engaged in teaching and coaching tennis. Prior to and following the war, he was with the Greensboro, North Carolina, Recreation Commission, leaving in 1947 to become coach at The McCallie School in Chattanooga. In 1949 and 1950 he was freshman tennis coach at North Carolina, and in 1950 assumed his present duties at Arkansas. During the summer Davis is tennis professional at the Rochester, Minnesota, Tennis Club.

position, but unless the challenger is successful he must start at the very bottom of all groups. After a contestant wins a position, then he may challenge one or two positions above his rank, thus advancing as rapidly as he is capable.

This system, with modifications, has been applied to all the singles and doubles divisions in all events for men, women, boys, and girls in our annual club championship. In the singles for men and women, twelve participants comprise a flight; in doubles, six teams comprise a full contingent. Flights in the events for boys and girls are made up of approximately four to eight players for singles and two to four teams for doubles. If only two teams should enter an event, and they are of approximately the same ability, then the event is as much a part of the tournament as if there were more entries. These teams may not fit into any of the other brackets, but they can have a great deal of fun playing off for the championship of their flight. Next year, instead of two entries, there will probably be four or five in this same flight, due to increased interest.

There are only two disadvantages in the flight system. First, a few players, even though they realize they are not in the class with the more advanced competitors, would like a chance to play those who are rated higher. The flight system does not provide for the weak to meet the strong. Second, when players are classified into groups, they are labeled either championship, second, or third class types. Some players do not like the labels they receive.

The advantages of the flight system over other procedures are numerous and significant. First, the system rec-

(Continued on page 48)

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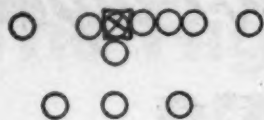
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Michigan System with a Balanced Line

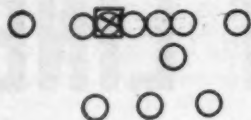
By FRANK WATERS

Football Coach, Walled Lake, Michigan, High School

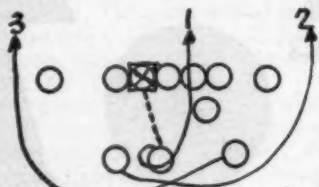
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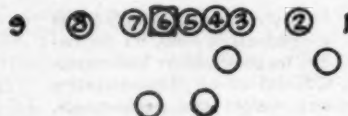
DIAG. 2



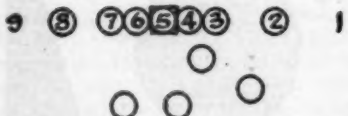
DIAG. 3



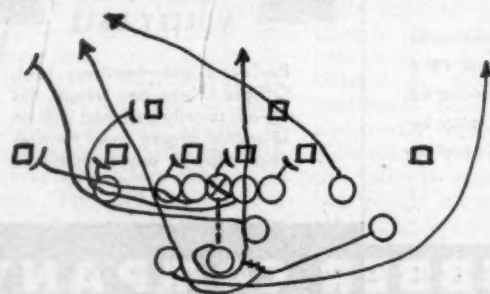
DIAG. 4



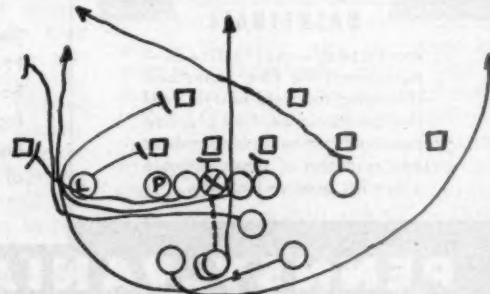
DIAG. 5



DIAG. 6



DIAG. 7



THE so-called Michigan system of football, which was originated at the University of Michigan over a decade ago, has spread to all parts of the country where it has enjoyed a great deal of success in many colleges and high schools. While each coach may apply a few of his own variations, it is still a distinctive style of play which may be recognized easily. After we describe briefly the general workings of this system, we will show a few variations which have been used with a degree of success at Walled Lake High School.

This system traditionally operates from an unbalanced line, with the team going directly to a T formation from the huddle (Diagram 1). Approximately 20 per cent of the offense is run from this formation. About 80 per cent of the plays are run from the single wing formation into which the backs shift from the T (Diagram 2). It is from this formation that the well-known spinner plays are run.

On the spinner series, the ball always goes to the fullback, who makes a complete turn, giving to one of the halfbacks and faking into the line, or faking to one or both halfbacks, and then hitting into the line with the ball, while the halfbacks fake end runs. The general strategy is to have at least two threats into the line. When the wingback comes around on reverses, or fake reverses, there are three threats with which the defense must contend (Diagram 3). With proper ball-handling and

good faking, these threats will momentarily freeze the defensive short backs, and allow the offensive blockers a better than even chance to get position on them.

In the line the holes are opened laterally by utilizing speed in the linemen, rather than sheer size and brute strength which used to be the main requisites of the "crack 'em and bash 'em" type of play used in the horse and buggy days. There is a block in at the hole, a block out at the hole, and the check block. There is usually a block in through the hole, a block out through the hole, with at least one man always being sent downfield to meet the ball-carrier at the cut-off and block for him there.

The block in at the hole is usually a co-operative effort which is known as a post lead block. The post blocker breaks the charge of the defensive lineman, and as the lead blocker makes contact, the post keeps the seam closed and helps pivot the opponent into a position where he may be driven laterally to the line of scrimmage. To block out at the hole a guard, a tackle, or the quarterback is utilized. This block is most often a trap, which requires the blocker to head for the tail of the hole man, get inside position on his target, and drive him out.

To close the hole left by pulling the linemen, and to prevent a fifth man from operating in the offensive backfield, the check block is necessary.



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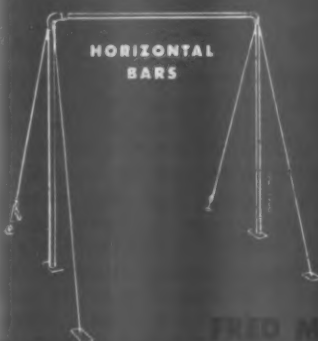
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Against hard-charging linemen, a high shoulder check block is used, with the offensive man keeping himself between the play and the man he is blocking. If an enemy is hitting and sliding to the play, the check blocker must go after him, hook his near knee, and go into a crab block to keep him pinned at the line of scrimmage. Blocking in through the hole requires the player to head close to the tail of the hole man, swing through the hole, and block in on the first defensive man to the inside who is usually a linebacker. Blocking out through the hole requires the same maneuvering, with the offensive man blocking out on the first opponent he comes to once he is through the hole. Most often this man is a defensive halfback.

The off-side end and sometimes the tackle are used for blocks at the cut-off. Their duty is to get downfield to a point where they will be able to help the ball-carrier once he has reached the secondary. A clever back will watch for this man and cut inside his block for a touchdown instead of a good gain.

Simplicity is the signal system used by the exponents of the Michigan system. Any play that is to go around the right end can be called a 1 play. Each lineman is numbered so that if a play is called which corresponds with his number he and his teammates know that it will hit over him. Many coaches number the right end as 2, the right tackle 3, the right guard 4, and left guard 5, the center 6, the left tackle 7. The left end is the 8 man, and every play that goes around him is known as a 9 play (Diagram 4).

With this system the offensive backs and linemen always know exactly where the play will hit regardless of the defensive setup. The last number of the signal always designates the hole where the play will hit, while the next to the last digit designates the series to be used. The 20 series could be the spinners, the 30 series could be direct running plays by the left halfback, the 40 series could stand for the buck lateral plays, etc., with any number of series the coach wishes to use in his offense. Consequently, if the quarterback were to call a 24, each player would know the play would hit over the 4 man and that it would be of the spin series.

Most coaches who use this system like to use a fluid wingback. Sometimes the right halfback will line up in a deep wing position and at other times he will go to the up wing. In

the deep wing position he splits the gap between the right end and the right tackle, while he is deep enough so that his heels are on a line with the fullback's toes (Diagram 2). In the up wing, he takes a position a yard out and a yard back from his right end (Diagram 4). To designate this option, the quarterback will call the plays as 100 when he wants the wingback in the up position. If the quarterback wanted the 24 play run with the wing up, he would call it 124 and everything would be exactly the same as the 24, except that the wingback would be in the up position.

At Walled Lake we use the fundamentals and the basic principles of the Michigan system. We do, however, use a few variations that allow us to take better advantage of our high school material. The most radical change we have made is to run the majority of our offense from the balanced line. Following the same numbering system, the left guard now becomes the 6 man, while the center becomes the 5 man (Diagram

FRANK WATERS learned his football under Charles Bachman and Biggie Munn. During his four years (1946-1950) on Michigan State's varsity team he played fullback. Waters is finishing his second year at Walled Lake. His 1950 team had a 500 average, winning four and losing four. This past season, using the system explained in his article, Waters' team was undefeated.

5). From this setup we find our weak-side attack is stronger, due in part to the fact that we have one more potential blocker closer to the hole. This enables us to hit the hole more quickly. However, there is no apparent weakening to the strong side because of this change. As a matter of fact, we feel it is stronger, except when we run our short yardage power plays.

In an unbalanced line we find some defenses are used which make it unwise to try to pull more than one man when hitting off the tackles or around the ends. This is especially true if a team is not blessed with speedy tackles. From the balanced line two men may always be counted on to pull and lead the play, except against an eight-man line, where two men are not needed.

In the balanced line, the guards are more centrally located when they

are separated by the center. When the situation demands, it is always possible to pull both of the guards at the same time without leaving a dangerous two-man gap to be closed. Our fastest linemen are put at the guard positions. This enables us to get the most possible speed around the ends and off the tackles, where it is most essential. When our tackles pull they have shorter distances to travel, and while they may not have the speed of the guards, they have ample time to complete their blocks with effectiveness.

We give our linemen only nine basic assignments to learn. By using these assignments, holes may be opened over any of the numbered positions which are shown in Diagram 5. While the linemen carry out the same assignments each time we want to open a particular hole, the backs have several series from which to choose. This enables us to run a good assortment of plays and hit each hole in several different ways, with but one assignment for the linemen to learn on each play.

In this day of changing defenses, it seems inadequate to design plays to work against just one defense, or to go to the other extreme, and overburden and confuse a team by asking them to learn a different assignment for every defense that might be encountered in each play in their system. Then again, the ability to work only a limited selection of plays against certain defenses greatly curtails the variety of the attack and presents fewer problems for the defense.

After analyzing the situation, it is obvious that no matter what defense is used, there is either a defensive man on an offensive lineman, or there is not. By using this simple observation we have worked out a series of assignments that enable us to hit effectively anywhere along the line, regardless of the defensive setup. By giving each lineman two alternatives to learn for each of our nine plays, we find our players have a minimum amount of trouble with changing defenses. As a general rule, each lineman will learn his assignments as follows: "If there is a man on you, . . ." and "If there is no man on you, . . ." Some linemen find they have only one assignment to learn on some plays whether or not there is a man on them. Then again, occasionally there is an exception to be learned for an eight-man line. However, there are only a few of these, and there are no exceptions to be learned against any defense under an eight.

(Continued on page 46)

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CALIFORNIA WORKSHOP

San Luis Obispo, Calif. Aug. 10-22
Courses—Basketball, baseball, track and training.

Staff—To be announced.

Information—Tuition \$5.00 per unit. Room \$5.00 per week; board \$1.55 per day.

Director—Robert A. Mott, Director of Physical Education, California State Polytechnic College, San Luis Obispo, California.

COLBY COLLEGE

Waterville, Maine June 19-21
Courses—Football and basketball.

Staff—James Tatum and Edgar Hickey.

Information—Tuition \$17.50 does not include room and board. Average cost of room \$2.50 per day; board \$3.00 per day.

Director—Ellsworth W. Millett, Box 477, Colby College, Waterville, Maine.

See advertisement page 62

COLORADO H.S. COACHES ASSN.

Denver, Colorado Aug. 19-23
Courses—Football, basketball, baseball, track, and training.

Staff—L. R. "Dutch" Meyer and Ben Carnivale. Others to be announced.

Information—Tuition \$5.00 for Colorado coaches; \$10.00 for out-of-state coaches. Average cost of room \$5.00 and board \$3.00 to \$5.00 per day.

Directors—N. C. Morris, Ed Flint, and Don Des Combes, 1532 Madison Avenue, Denver, Colorado.

See advertisement page 56

COLORADO, UNIV. OF

Boulder, Colorado June 16-21

Courses—Football, basketball, baseball, track and training.

Staff—Fritz Crisler, Dal Ward, Sparky Stalcup, Bebe Lee, Frank Prentup, Frank Potts, and Aubrey Allen.

Information—Tuition \$10.00 does not include room and board. Average cost of room 75 cents per day; board \$1.75 per day.

Director—Harry G. Carlson, University of Colorado, Boulder, Colorado.

IDAHO COACHES ASSN. C. S.

Boise, Idaho Aug. 11-16

Courses—Football, basketball, track, and training.

Staff—Don Fautot, Babe Curfman, Eddie Cole, Babe Cassia, "Tippy" Dye, Stan Hiserman, and "Dubby" Holt.

Information—Tuition \$10.00 for members; \$15.00 for non-members. Dormitory rooms available.

Director—L. L. Patterson, South Junior High School, Boise, Idaho.

See advertisement page 59 April issue

ILL. NORMAL-WESTERN C.S.

Macomb, Illinois June 10-11

Courses—Football, basketball, wrestling, tennis, and officiating.

Staff—Sid Gillman and Frank "Buckey" O'Connor.

Information—Tuition free.

Director—Ray Hanson, Western Illinois State College, Macomb, Illinois.

NORTHERN ILL. TCHRS. COLL.

DeKalb, Illinois June 17-18

Courses—Football and basketball.

Staff—To be announced.

Information—Tuition free. Average cost of room \$2.50 and board \$2.50 per day.

Director—George G. Evans, Northern Illinois State Teachers College, DeKalb, Illinois.

INDIANA BASKETBALL SCHOOL

Kokomo, Indiana Aug. 14-16

Courses—Basketball.

Staff—To be announced.

Information—Tuition \$10.00. Average cost of room \$3.00 and board \$5.00 per day.

Director—Cliff Wells, Box 83, Tulane University, New Orleans, Louisiana.

See advertisement page 60

KANSAS, UNIV. OF

Lawrence, Kansas June 6-Aug. 2

Courses—Elementary and advanced basketball; theory and practice of athletic training; and advanced football.

Staff—Dr. Forrest C. "Phog" Allen and J. V. Sikes.

Information—Regular summer session tuition.

Director—Henry A. Shenk, Dept. of Physical Education, University of Kansas, Lawrence, Kansas.

KENTUCKY, UNIV. OF

Lexington, Kentucky Aug. 13-16
Courses—Football and basketball.

Staff—Lynn Waldorf, Fritz Crisler, Bear Bryant, Ray Meyer, and Adolph Rupp.

Information—Tuition free.

Director—Bernie A. Shively, Director of Athletics, University of Kentucky, Lexington, Kentucky.

See advertisement page 52

LOGAN'S TRAINING CLINIC

Pepperdine College Sept. 1-3
Los Angeles, Calif.

Courses—All phases of training.

Staff—Roland "Kickapoo" Logan, Dr. William Allen, Dr. Harvey Billig, and others to be announced.

Information—Tuition \$12.50.

Director—Student Health Department, Pepperdine College, Los Angeles, California.

LOUISIANA H.S. COACHES ASSN.

Shreveport, Louisiana Aug. 6-8

Courses—Football, basketball, baseball, and track.

Staff—Gus Tinsley, Tommy Mont, Warren Giese, and Ed Hickey.

Information—Tuition \$3.00 for active high school members; \$5.00 for non-members. Rooms are free and average cost of board is \$2.00 per day.

Director—Woodrow W. Turner, Byrd High School, Shreveport, Louisiana.

NORTHERN MICHIGAN C.S.

Marquette, Michigan July 31-Aug. 2

Courses—Football and basketball.

Staff—To be announced.

Information—Tuition \$10.00 includes room and board.

Director—C. V. "Red" Money, Northern Michigan College, Marquette, Michigan.

MICHIGAN, UNIV. OF

Ann Arbor, Michigan June 23-July 5

Courses—Football, basketball, track, golf, gymnastics, and intramurals.

Staff—Bennie Oosterbaan, Ernie McCoy, Don Canham, Albert Katzenmeyer, Newton Loken, and Earl Risky.

Information—Tuition \$20.00 resident; \$30.00 non-resident participation; \$50.00 non-resident credit. Average cost of room \$1.00-\$5.00 per day; board \$4.00-\$6.00 per day.

Course carries two hours of graduate credit. May be elected for non-credit.

Supervisor of Course—Howard C. Leabee, Waterman Gymnasium, University of Michigan, Ann Arbor, Michigan.

By EVERETT S. DEAN
Baseball Coach, Stanford University


EVERETT DEAN'S article, "The Stanford Pitching Chart," which appeared in the April 1951 issue, brought so many requests for additional information that he wrote the accompanying follow-up. This article consists of the results of a full season's play and presents a great deal of baseball information which is a little on the unusual side. Dean has considerable analytical ability as this article so clearly demonstrates.


Chart II shows a method of tabulating the total pitches, including four types of pitches, by Stanford and op-


A comparison may be made of the efficiency of a team's pitchers with


KEY

1 - Fast Ball	• - Base hit
2 - Curve Ball	•• - 2 base hit
3 - Change	••• - 3 base hit
4 - Cross-Fire	◇ - Home Run
B - Base on Balls	
K - Strike Out	Strikes in Red
H - Hit Batter	Balls in Black

 Dot at top, middle or bottom of line
 indicates pitch is high, belt high, or low

 Dot over line is hit on fly ball

 Dot under line is hit on ground ball

 Dot at end of line is hit to that side

OPPONENTS PITCHERS		Summary	STANFORD PITCHERS	
NISHITA-8INNINGS			LOSENBAUGH-9 INNINGS STAN - OPP	
122	No. of Pitches for Game	138	No. of High Pitches	41 19
74	No. of Fast Balls	93	No. of Belt Hi-Pitches	54 53
43	No. of Curve Balls	43	No. of Low Pitches	43 50
5	No. of Change Pace	2	No. Bases on Balls	5 6
4	No. Hits off Fast Ball	3	No. Strike Outs	6 4
1	No. Hits off Curve Ball	0	No. Hit Batsmen	1 0
0	No. Hits off High Pitches	1	No. Earned Runs	
3	No. Hits off Belt Hi-Pitches	2		
2	No. Hits off Low Pitches	0		

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This year, for the first time, the new Voit XB20 rubber-covered basketball will be used in many of the top collegiate, junior college and high school league games throughout America. Perfected over the past three years, this new ball was introduced at spring practice last year. Coaches and players told us, "This is the finest basketball ever made - bar none." This new Voit XB20 has -

"X-tra" control - new, wider seams for sure grip, easier handling.

"X-tra" feel - new pebble-graining for better fingertip touch.

"X-tra" performance - absolutely official performance for the life of the ball.

"X-tra" wear - lasts from 2 to 4 times longer than conventional basketballs.

It's no wonder so many "varsity" games will be played with the XB20 this year. When coaches and players see the performance and value in this ball - when school buyers see their basketball budget expand like a winning coach's chest because of the savings possible with the XB20 - all say, "This is the year of 'X-tra' value - Voit XB20 value."



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CHART II

Game													Totals	
San Jose		1	2	3	4	5	6	7	8	9	10	11		
4-13-51		P-H	P-H	P-H	P-H	P-H	P-H	P-H	P-H	P-H	P-H	P-H		
Player	Inning												Pitches	Hits
Osenbaugh	Fast Ball	9-1	6-0	5-0	13-2	5-0	9-0						47	3
	Curve Ball	2-0	6-0	4-0	2-0	3-0	4-0						21	0
	Change			1-0			2-0						3	0
	X-Fire		2-0	1-0		1-0	1-0						5	0
Chez	Fast Ball							18-4					18	4
	Curve Ball							3-0					3	0
	Change							4-0					4	0
	X-Fire												0	0
Murphy	Fast Ball							1-0	5-1	9-1			15	2
	Curve Ball							1-0	4-0	7-0			12	0
	Change												0	0
San Jose	X-Fire												0	0
Collins	Fast Ball	11-1	8-0	10-0	8-2	5-1	16-8	5-1	3-1				66	11
	Curve Ball	7-2	7-0	4-0	3-0	3-0	8-0	5-0	3-0				40	2
	Change	1-0	1-0				1-0	1-0					4	0
	X-Fire												0	0

that of the opponent's pitchers, as well as with a standard of good pitching. This is a valuable motivating factor in developing interest in pitching and in the game.

We found that our pitchers averaged 132 pitches per game as compared to 131 for the opponents. Chart II shows the mixture of pitches, whether or not the change-of-pace was being used often enough, the cross-fire, and the ratio of the curve ball to the fast ball. Pitchers and catchers may learn much by studying this ratio.

Some interesting information is brought out in Chart III. The game shown in this chart was selected at random and was not chosen because of its startling information. Twenty hits were made in the game off 145 fast ball pitches as compared to two hits off 67 curve ball pitches. Also,

(Continued on page 53)

CHART V

GAMES	2-17	2-27	3-2	3-3	3-8	3-12	3-24	3-27	3-30
	P.A. Oaks	San Jose	U.S.F.	Berkovich	El Toro	U.S.F.	Compton	Santa Barbara	U.S.A.
Number of times both pitchers	Osenbaugh A-6 B-3 E-6	Osenbaugh A-7 B-4 E-5	Chez A-9 B-6 E-10	Murphy A-5 B-8 E-11	Osenbaugh A-12 B-0 E-4	Murphy A-7 B-6 E-2	Osenbaugh A-11 B-6 E-17	Claypool A-13 B-3 E-14	Osenbaugh A-23 B-15 Lourich
Ahead — A	Claypool	Stellar	Claypool	Osenbaugh	Murphy	Osenbaugh	Stellar	Osenbaugh	A-25
Behind — B	A-4	A-4	A-9	A-9	A-8	A-5	A-2	A-5	B-15
Even — E	B-3	B-3	B-3	B-2	B-2	B-6	B-6	B-3	
	E-4	E-4	E-10	E-7	E-7	E-7	E-3	E-6	
in count	Chez A-3 B-2	Murphy A-2 B-2	Thollander A-11 B-5	Gear A-5 B-6	Tillman A-9 B-7	Claypool A-5 B-2	Gouvorchin A-4 B-9	Rubenstein A-3 B-6	
Counts:	E-2	E-2	E-5	E-7	E-9	E-0	E-8	E-7	
Ahead: 2-0, 3-0, 3-1.	No oppo-	Collins A-6 B-14	Townsend A-7 B-11	Greenwood A-4 B-4	Motley A-3 B-2	Thollander A-15 B-9	Enos A-5 B-8	Smallwood A-11 B-6	
Behind: 0-1, 0-2, 1-2, 2-2.	nents	E-12	E-9	E-9	E-3	E-12	E-8	E-15	
Even: 0-0, 1-0, 1-1, 2-1, 3-2.	charted	Maloni A-4 B-1 E-3		Ballard A-3 B-3 E-4					
3-31	4-6	4-7	4-7	4-10	4-13	4-14	4-17	4-20	4-21
U.S.C.	Calif.	Santa Clara	Santa Clara	S.F.S.	San Jose	Alumni	U.S.F.	U.S.C.	Santa Clara
Claypool A-9 B-9 E-21	Osenbaugh A-14 B-12	Claypool A-23 B-9	Chez A-18 B-16	Murphy A-9 B-8 E-12	Osenbaugh A-13 B-11 Chez A-3 B-4 Murphy A-3 B-6	Alexander A-7 B-8 Stellar A-5 B-19 Claypool A-2 B-0 Smith A-2 B-3	Murphy A-14 B-14	Osenbaugh A-15 B-6 E-17	Claypool A-12 B-8 Murphy A-10 B-13
Ane A-9 B-8 E-14 Cesca A-2 B-1 E-2 Rankin A-3 B-1 E-2 Kamp A-3 B-1 E-1 Murphy A-9 B-4 E-1	Nishita A-17 B-10	Seybold A-21 B-19	Chavez A-19 B-12	Stellar A-1 B-5 E-6	McDowell A-9 B-14 E-19 Clayton A-0 B-4 E-4	Heinen A-14 B-11 Armstrong A-10 B-10	Thollander A-18 B-11	Laurich A-6 B-3 E-7 Rankin A-3 B-4 E-5 Hernandez A-2 B-4 E-0	Seybold A-14 B-10 E-15 Chavez A-1 B-1 E-5



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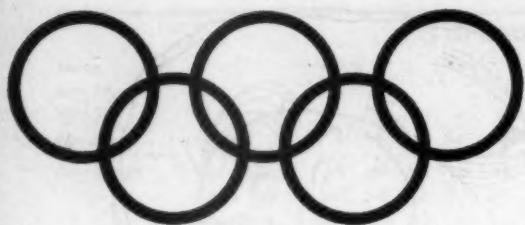
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Olympic Prospects

By H. D. THOREAU

Editor, N.C.A.A. Track and Field Guide

PART TWO

(Continued from April issue)

Later that same afternoon the arduous 10,000-meter run will be held. This distance, slightly over six miles, is much farther than Americans care to run, but it is ideal for the more patient and persevering Europeans. If ever there was a certain thing in Olympic track competition, it seems to be Emil Zatopek, the Czechoslovakian army captain. Last August he ran two 10,000 meters in succession without stopping, both of them 40 seconds faster than any American has ever been able to run a single 10,000. He finished the 20,000 meters—12 1/2 miles—in 8 seconds less than one hour; whereas, only six other runners on record, including all of the Finnish and Swedish distance aces, have ever been able to run 10,000 in less than a half-hour.

Zatopek, an awkward little fellow with thinning, straw colored hair, does not look like a champion. "He puffs and blows while running, makes frightening faces, jerks his head and hunches his shoulders painfully. Every few steps he drops one arm down as if to scratch his leg," according to one observer. But he gets there first, and usually a few hundred yards ahead of his smooth-gliding foes. Zatopek won the 10,000 in the 1948 Olympics, took the European championship two years later, and holds the world record for the distance, 29 minutes, 2.6 seconds.

There are some other good men at this distance and they should put on a spirited race, far to Zatopek's rear. Herbert Schade, a young German; Bertil Albertsson of Sweden; Alain Mimoun, a Frenchman from Algiers; and Martin Stokken of Norway are the other less-than-30-minute men now running. It is almost a national sorrow in Finland that they have no outstanding contenders for the title which they won in five of the last seven Olympic Games. The best Finns now running, Vaino Koskela and Pentti Salonen, fall short of the times turned in by the great Paavo Nurmi 28 years ago.

Although no American has finished among the first six in an Olymp-

ic 10,000 since 1912—only five men finished the race that year including one American—we will undoubtedly have three men on the starting line this year. Fred Wilt, the New York FBI agent, and Curtis Stone will probably be our strongest contenders, but both may pass up this race in favor of a shorter one such as the 5,000-meter run or the 3,000-meter steeplechase. Stone's time of 30 minutes, 38.4 seconds three years ago is by far the fastest 10,000 ever run by an American. Tom Crane, Bob Black, and young John Kelley, all from the New England road-racing set; Horace Ashenfelter, a Boston FBI man; and Walt Dieke and Larry Carter from California are other Americans who seem willing to run that far.

The English feel certain that a pair of their long-winded boys, Walter Hesketh and Gordon Pirie, will try the 10,000-meter run at Helsinki. The Russians will likely make a formidable showing at 10,000 meters. Ivan Semyonov and Vladimir Kazantsev are in the 30-minute class, and Nikifor Popov and Yakov Moskachenkov will also probably finish far ahead of our contestants.

Here is a possible finishing order: 1. Zatopek (Czechoslovakia); 2. Schade (Germany); 3. Mimoun (France); 4. Albertsson (Sweden); 5. Hesketh (Great Britain); 6. Koskela (Finland).

On Monday afternoon the strong men will gather for the shot put final. This appears to be an all-United States-Russia argument with possibly an Icelander receiving a chance. Reigning king is James E. Fuchs, Yale graduate. Fuchs, on a summer trip to Finland in 1950, tossed the shot 58 feet, 10 3/4 inches for a new record. Until last June Fuchs had won 89 consecutive competitions. In the American championships he was unable to get himself warmed up and was defeated by 19-year old Parry O'Brien, an undergraduate at the University of Southern California, who tossed the shot 55 feet, 9 1/4 inches.

Another American shot putter is Otis Chandler, who is now serving a tour of duty with the Air Force. Chandler, a 230-pound blond giant, who grew from a sinewy high jump-

er to a shot putter in one summer of weight-lifting, may give Fuchs even more trouble. Chandler had a 56-foot throw last year and a 57 foot, 4 3/8 inch toss the year before, which makes him the No. 2 shot putter in the world. Other American contenders are Bernie Mayer from Long Island; Stan Lampert of New York City; and Darrow Hooper and Bob Carey, two young football stars from Texas A. & M. and Michigan State, respectively.

Against this array the Soviet will likely pit Heino Lipp, Otto Grigalka and Georgiy Fyodorov. Lipp, an Estonian whom the Russians did not choose to send to the European meet at Brussels two years ago, has a throw of 55 feet, 8 1/2 inches to his credit. This is the best throw ever made by a non-American. Although he might not be overjoyed at competing in behalf of the Russians who appropriated his country, Lipp will still probably be a serious threat to the supremacy of the United States since he is very consistent at 54 and 55 feet. Grigalka, a big farm boy from the Ukraine, is improving rapidly and will probably give his all for the glory of Stalin. He moved up from 52 feet, 7 inches, to 54 feet, 10 inches, last summer and another season at the Crimean winter-training quarters should add another foot to his puts. Fyodorov is an average putter who achieved his best mark, 52 feet, 9 1/2 inches at the so-called World Student Games which were held in East Berlin last August.

The only outsider who has a chance appears to be Gunnar Huseby from Reykjavik, Iceland. He is the European champion, having defeated Grigalka with a 54 foot, 11 inch put. John Savidge, a 6-foot, 8-inch Englishman, got off an unexpected 54 foot, 5 inch put last year and might do it consistently this season if he strengthens his legs. Jiri Skobla of Czechoslovakia might place among the first six, as might Roland Nilsson, a Swedish boy who is now studying at the University of Michigan, and M. Tuicaku of the Fiji Islands, the British Empire champion.

It will be surprising if the shot putters finish in this order: 1. Fuchs

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Sacramento College	Denver University	University of West Virginia
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(U.S.A.); 2. O'Brien (U.S.A.); 3. Lipp (Russia); 4. Chandler (U.S.A.); 5. Huseby (Iceland); 6. Grigalka (Russia).

After three rounds of elimination races the previous two days, the large 100-meter dash field will be pared down to six finalists—supposedly the world's six fastest humans. It is quite likely that three of the six will be Americans since no other country in the world places as much emphasis on sheer speed as we do. Unless he breaks a leg or bows a tendon in the intervening months, Emmanuel McDonald Bailey of the island of Trinidad should also be in that final. Bailey who equaled the world record of 10.2 seconds for the 100 meters at Belgrade last summer, and Harrison Dillard are the only two of the six 100-meter finalists in the 1948 Games who are still running as amateurs. Mel Patton is coaching; Barney Ewell and Lloyd LaBeach have been running professionally; and Alan McQuorquodale of Scotland has retired.

Two boys who were unable to make the 1948 final seem to be good bets for 1952. Rafael Fortun of Cuba and John Treloar of Australia. Fortun has since won the Central American and Pan-American Games sprints and has defeated a number of United States stars. Treloar, the Empire champion at 100 and 220 yards, and his countryman, Bill de Gruchy, will be dangerous if they can accustom themselves to running on a track instead of grass, and running in July instead of January (their summer).

Vladimir Sukharyev of Russia is certain to be a place winner if he can repeat his best times when he is out from behind the Iron Curtain. Last summer he ran the 100 meters in 10.3 seconds, just a tenth of a second slower than the world record, but it is suspected that he will not be able to repeat this clocking in the presence of more exact timers. In 1950 he had a 10.4 time but could only do 10.7 for third place in the European final. France's Etienne Bally, the European champion, and a trio of Germans, Heinz Futterer, Werner Zandt, and Hans Geister, might squeeze into the final. Russia has a dark horse in Levan Sanadze.

Jim Golliday, a stocky little sophomore from Northwestern University, seems to be the most reliable American hope. He came from comparative obscurity last year to win the United States 100-meter title in 10.3, and was undefeated in a summer tour through Europe. Andy Stanfield, a tall, lean New Jersey boy,

might quite possibly be the current "world's fastest human," but he developed leg trouble during the past two years, so he cannot be counted on. Bob Work of Monterey, California, Art Bragg of Morgan State College in Baltimore, and Jim Ford of Drake University also might be able to beat all of Europe's best.

In a tightly-packed finish we see the following outcome: 1. Golliday (U.S.A.); 2. McDonald Bailey (Great Britain); 3. Stanfield (U.S.A.); 4. Fortun (Cuba); 5. Bragg (U.S.A.); 6. de Gruchy (Australia).

It is only the Germans and Japanese who have ever given the United States much trouble in the broad jump, and the war effort apparently took a great deal of the spring out of them, since they have not produced any outstanding jumpers since the late thirties. America has



won the broad jump in nine of the ten modern Olympics and appears headed for another leaping title this summer. The main reason for this optimism is an intense young student at U.C.L.A. His name is George Brown. George participated in 27 meets last year and was undefeated in his specialty. After defeating the best in this country, he went on a tour through Japan where he jumped 26 feet, 1 inch. The United States has two other good 25-foot broad jumpers in Stanfield and Meredith Gourdine of Cornell University. Both of these boys jumped 25 feet, 9 inches last year, but were unable to defeat Brown. If Stanfield should decide to pass up the strenuous jumping event and concentrate on his sprinting, it is difficult to tell who the third United States representative will be in the Games. Possibly it will be Jerome Biffle, the 1950 collegiate champion from Denver who is now serving in the Army, or maybe Bill Hairston, a Columbus, Ohio, boy

who had an impressive record in high school last spring, or Lorenzo Wright of Detroit, who placed fourth in the broad jump at London in 1948.

The only boy outside of this country who has jumped 25 feet since World War II is Neville Price from South Africa. Price is now attending the University of Oklahoma. If he is able to repeat his 25-foot, 3/4-inch jump of 1950, he might break into the United States sweep. Two other South Africans, Harold Rall and Denis Hasenjager, might jump into the bronze medal class, as might Lancelot Thompson of Jamaica or Hugh Jack of Australia. Prince Adedoyin placed fifth at London and might be able to place again this year. Europe's best, Odon Foldessy of Hungary, Paul Faucher of France, Torfi Bryngeirsson of Iceland, Gerhard Luther of Germany, Alvaro Dias of Portugal, Boris Brnad of Yugoslavia, Eddie Adamczyk of Poland, and Henk Visser of Holland, are not good enough. The Russian broad jumpers, Andryushenko, Kotenkov, and Grigoryev jump only 23 feet.

Without hesitating we will make the following forecast: 1. Brown (U.S.A.); 2. Gourdine (U.S.A.); 3. Wright (U.S.A.); 4. Price (South Africa); 5. Hasenjager (South Africa); 6. Visser (Netherlands).

While the broad jumpers are taking their final turns in the pit, the six finalists in the 400-meter hurdles will be lined up on the track. If they seem a little tired as they kneel down on their starting blocks it will probably be due to the fact that they ran preliminary heats until 8:15 the previous evening, under the long summer sun of Finland.

This race covers one complete lap of the 400-meter track, which is a few yards less than a quarter-mile. Every 20 yards there is a 3-foot hurdle. Hurdling is another art that the people of other countries never seemed to master quite as well as have the Americans. The Olympic 400-meter hurdle crown has gone to a United States citizen seven times. Lord Burghley of England in 1928, and Bob Tisdall of Eire in 1932 have been the only non-American winners.

A likely successor to the long line of American victors is Charlie Moore. Moore has taken time out from his Cornell University medical studies to win the United States 400-meter hurdle title for the past three years. In 1949 he completed the race in 51.1 seconds, the best time ever recorded in this country, equal to the Olympic record set by Indiana's Roy Cochran in 1948, and surpassed only by the

world mark of 50.6 seconds set by a Louisiana boy, Slat Hardin, at Stockholm on a European mission in 1934.

It will take a great deal of running and jumping to defeat Charlie Moore, but one of the boys who might possibly do it is Moore's own Cornell teammate, Meredith Gourdine, the broad jumper of note. In Gourdine's first try at the event two years ago he finished second to Moore at the Penn Relays in 52.5 seconds. Last season at the Penn Relays Gourdine ran into a hurdle and cancelled the balance of his run. Jim Lea, a promising sophomore at U.S.C., has shown both speed and hurdling ability. Bob Devinney, an unassuming young Kansan, chased Moore in the nationals last summer with a 51.8 clocking. Jack Greenwood, another Kansan, Ralph Taylor of Oklahoma A. & M., and Don Halderman of Los Angeles are other prospects.

Yuriy Lituyev set a new Soviet Union record of 51.7 in their championships last season. Lituyev was defeated by Italy's Armando Filliput in the European championships two years ago. Since that time Filliput seems to have slipped perceptibly, while Lituyev has improved. Timofey Lunyev has been shadowing Lituyev in their recent fast races and may be close up at Helsinki.

A strong and experienced contender from the other side of the world is Duncan White of Ceylon. White was runner-up to Cochran in the 1948 Games in 51.8 and has since captured the Empire Games title. Sweden's Rune Larsson was a topnotcher, but may have passed his peak. The Republic of Colombia produced a surprise winner in the 400-meter hurdles at the Pan-American Games in Jaime Aparicio. New Zealand's John Holland will have to travel a long way to run this race, and he cannot be disposed of lightly.

As they come across the finish line, they appear to us to be in the following order: 1. Moore (U.S.A.); 2. White (Ceylon); 3. Lituyev (Russia); 4. Lea (U.S.A.); 5. Filliput (Italy); 6. Holland (New Zealand).

After a three-hour preliminary elimination on Monday morning, the pole vault finalists will settle down to serious vaulting at 3:00 P.M., Tuesday, July 22.

Only a major change of form will prevent the United States from scoring its eleventh consecutive win in the Olympic vault. In both the 1932 and 1936 Olympics, Japan gave us a run for our money, and in 1948 we

(Continued on page 55)

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Golf In the Small High School

By **CHARLES E. ANDERSON**

Golf Coach, Bement, Illinois, High School

MANY of our leading coaches and physical educators have long been aware of the carry-over value in golf.

For the majority of boys, participation in the more strenuous sports, such as baseball, basketball, and track, ends, or at the most, lingers only a few years after graduation from high school. After a boy graduates, it becomes increasingly difficult to get up a game of football or basketball. He still has the desire to participate in sports, but is frustrated in his efforts to fulfill his desire. There are many young men today, especially in the smaller communities, who would like to continue the brief athletic careers they enjoyed in high school. The answer is golf. A boy who has learned the fundamentals of golf in high school may continue to enjoy the thrill of competition and fellowship for many years to come. Of course, a certain percentage of these graduates will eventually discover the game of golf, but the majority will become victims of our growing malady *spectatoritis*.

The small high school is necessarily limited in its athletic endeavors by a small budget. We encountered this problem but did not let it deter us. Several boys indicated they would be interested in forming a golf team, so we devised a plan and proceeded to carry it out.

A brief history of golf, along with a list of terms, rules, and etiquette, was compiled and mimeographed. Twenty boys attended the first meeting, and each was presented with one of the mimeographed copies. A quick check revealed that only two of the boys had ever played golf and only one boy owned a set of clubs. The immediate problem was to secure the minimum amount of equipment necessary to carry out our program. The boys were instructed to take the mimeographed copies home and study them in their spare time.

A notice was placed in the local newspaper informing the community of our golf team and the dire need of golf equipment. The community responded splendidly and within one week had contributed an assortment of thirty golf clubs, six golf bags,

and sixty used but serviceable golf balls. Our budget allowed us to purchase eight new clubs, a box of tees, and two dozen plastic practice balls.

Since the spring athletic program consisted of track, with baseball beginning the first week of May, we were available evenings for several weeks before taking up our duties as baseball coach.

The first practice session took place on the football practice field and included a demonstration of the stance, grip, and swing. The boys were paired off and given a club apiece and a practice ball between them. They were instructed to practice hitting the ball while we circulated among them attempting to correct the numerous mistakes being made.

We continued our daily practice sessions for two weeks, weather permitting, before visiting a golf course. Since we do not have a golf course in Bement, the president of the board of directors of a country club in a nearby community was contacted and informed of our predicament. We had a golf team but no golf course! He offered to let the team practice on the country club course gratis, provided the boys were accompanied by an adult at all times. We continued practicing on the football field during the week and played the course on Saturday mornings.

After the baseball season began, we were busy with the baseball team, so each boy was allowed to check out clubs, tees, and a practice ball, and was instructed to practice at home whenever possible. We continued to play on Saturday mornings and during the week when baseball duties permitted.

A golf match was arranged with a neighboring high school, and the boys gained valuable experience although they lost the match. We were able to play only one match last season, but have several matches scheduled for this season.

Several of the boys plan to purchase equipment this summer. By next spring we hope to have some entries in the district golf tournament conducted by the Illinois High School Association.

Gymnastic Meets

(Continued from page 20)

of the events the places from one to six were held by the same gymnasts, with the exception of the side horse, where the seventh man changed positions with the sixth man. In each event the order of places was the same in three events, and changes in the sixth position occurred only in two events. In the remaining event there was a more radical change in that the third, fourth, and fifth places were interchanged.

This study was primarily exploratory in nature and, as a result, several problems have arisen which might prove to be fruitful channels for future research. One thought is that more studies along this line should very definitely be undertaken. Joe Hewlett, gymnastic coach at Ohio State, is conducting a similar study and his results are eagerly awaited.

Studies should be conducted to see whether or not judges tend to favor the home team. It might also prove worthwhile to examine the judging records of a number of recognized officials over a longer period of time in an attempt to learn whether a judge is consistently low or high in a particular event. Further analysis could be carried out by use of a questionnaire. With this tool it would be possible to survey the opinions of judges and determine the items of agreement as well as disagreement.

Also, in connection with thoughts designed to improve the present judging situation, gymnastic clinics should be held throughout the country. At the 1951 N.C.A.A. Gymnastic Meet such a gymnastic clinic was held on Thursday, the day before the meet. This clinic was well attended, and, as a result, a similar clinic is being planned for future meets. Other clinics are being held throughout the country. Last winter a number of coaches traveled long distances to attend meetings at Daytona Beach. Many gymnastic districts are planning their own clinics. The Big Ten is endeavoring to hold a clinic on Saturday afternoon in connection with the Big Ten Meet. Clinics are being planned for the coming year in the East and in the far West, particularly in California. The judging organization that exists in the southern section of California is doing an excellent job.

This all proves that the coaches are intensely concerned about the status of judging at meets.



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Traction With Heat for Neck Injuries

By **J. BLAINE RIDEOUT**
Head Trainer, University of Nebraska

SPRING football practice is at hand, and there will be neck injuries, in addition to other injuries, for the trainer to worry about. The stiff neck will come in for its share of attention and treatment. At this time we would like to describe our treatment of neck injuries.

In an earlier article, the traction halter was demonstrated. This halter is used for removing players with neck injuries from the field to the training room. Since a neck injury is generally placed in traction before x-ray diagnosis is made, and afterwards for possibly twelve hours to relieve muscle spasm, we felt that if traction with cold applications was beneficial during the first few hours it could also be beneficial in the later stages of treatment when heat was the therapy prescribed.

This article pertains to injuries of the muscles of the neck with insertions in the shoulder area. When all possibilities of fracture to the cervical spine were negative, the athlete returned to the training room for further treatment and rehabilitation.

Most neck injuries are caused by the use of improper technique in blocking and tackling. The trapezius muscle is used to keep the player's head up and his eyes on the ball-carrier's belt buckle when the tackle is to be made. Lowering of the head puts an abnormal strain on the trapezius muscle. In the flexion and rotation of the head, the scalenus, anterior, medius, and posterior muscles are used, and if these muscles are

strained beyond their limit, they will become spastic and cause great discomfort. The levator scapulae is best explained as the main muscle that is used, when the tackler hunches his shoulders just before making contact. If this muscle is not contracted, it receives a blow while relaxed. Then the muscle goes into spasm and is another cause of the stiff neck.

Our method of applying this type of traction is shown in the illustration. The halter is attached over the head by a spring or strong piece of inner tube to an overhead ladder or steam pipe so that there is decided pull on the neck and shoulder muscles while the patient is seated on a stool. The heat lamp is then turned on the injured muscles for 15 to 20 minutes. After 15 or 20 minutes of heat and traction the neck and shoulder muscles are massaged, and the athlete is put back into the traction harness and exercised. The heat lamp is moved forward and backward, and from side to side until the muscles being treated begin to feel tired. This form of treatment and resistance exercise is done each day until the patient is free of pain. When the patient is free of pain he is instructed to take extra bridging exercises during the grass drill period each day of practice.

This treatment has speeded up recovery and has given the patient relief sooner than if the traction had not been applied with the heat treatment in the recuperative stage.



BLAINE RIDEOUT, who is no stranger to our readers, graduated from North Texas State College where with his brother, Wayne, he gained a world-wide recognition as a member of the Rideout Twins. During the war he was a combat corpsman with the 4th Marine Division. After being discharged from the service Rideout coached track at Denton, Texas, High School and in 1947 went to Texas A. & M. as head trainer.

Changing Defenses

(Continued from page 17)

to the No. 1 back who runs through the No. 5 hole (Diagram 5). Our end around play would carry the number 3-50.

A simple set of rule blocking combined with the numbering system enables our boys to block with confidence. The number of digits in the play tells whether a sustained or brush block is necessary.

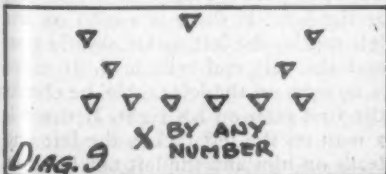
With this explanation of our numbering system, it is now possible to understand how we adjust to meet changing defenses.

If our quarterback comes out of the huddle and sees that the defense is in a position to stop the play called, he may change the play by merely adding or subtracting up to 7. Let us assume that the quarterback's original call was play No. 32. By shouting "add 1" he could take advantage

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of a hole on the weak side of the line and run play No. 33. In the same manner, if there was an opening off the strong-side tackle slot, the quarterback would shout "add 6" and the play would then become No. 38 (Diagram 6).

To take advantage of backers-up out of position, the quarterback has a quickie pass to the right end at his command by shouting "add 8 or 9." Minus 8 or 9 tells the team that the play will be a quickie pass to the weak-side end (Diagram 7). In order to fool the defense and not permit them to learn our plays, the quarter-



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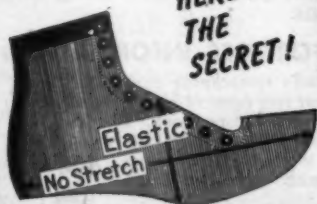
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back at different times calls these numbers; but by pre-arranged signals, runs other plays.

If an extreme overshift is encountered, after leaving the huddle, we run an automatic reverse by shouting "divide by any number." We also have a quick kick to take advantage of a close-in defense. This is called by multiplying by any number (Diagrams 8 and 9).

With this bit of ammunition we feel that our boys do not have to bang their heads against a stone wall. We try as much as possible not to subject our boys to poor blocking angles or to overload them with an excessive repertoire of assignments.

From a coaching standpoint this innovation has proved a boon to the morale of our football team. It has given our boys a big psychological lift. We now feel we are able to exploit our opponents' weaknesses rather than have the defense one step ahead of us.

Michigan System

(Continued from page 30)

When any man in the line has his number called, he knows the play is to hit over his territory, and that he has a key block in at the hole to perform. Contrary to many post lead advocates, we do not insist that the man whose number is called always be the lead blocker. We use this rule instead, "If there is a man on you, post. If there is no man on you, lead."

Doing it this way, we find that our lead blocker always has an advantageous angle and does not have to spend time jockeying for position. When the post lead block is taught by using this principle, time is saved in practice because there are not so many variations to learn.

The element of surprise from cross-charging and looping linemen is greatly reduced when the post lead is used in this manner. If the angle charger slants to the inside, he is helping to take himself out of the play. If he charges to the outside, he will find the lead blocker coming directly at him.

In order to avoid confusion regarding the direction from which the lead is to come, we have designated the plays, 1 through 4, as having the lead always come from the right. The lead block will always come from the left on plays 5 through 9. The post blocker should never be confused when he knows this simple rule. It works out so that any direction toward the center may be called "in" and away from

the center may be referred to as "out". To simplify the situation, when a man is playing in the seam we consider him as being on the man closest to the center.

To give the check blockers as much of an advantage as possible we have set up our blocking assignments in such a manner that the defensive man, to get to the play, must cross the path of the offensive man assigned to block him. If the play is to go to the left of the check blocker, we try to arrange it so the man is on his right. Sometimes it is necessary for him to block the man on him, but there is never a time when we ask a check blocker to take a man positioned on his left if the play is to hit to the left of that blocker. The same principle applies in reverse when the play is to hit to the check blocker's right. We have found that the check blocker is able to do an effective job against cross-charging and looping linemen.

In order to see some of these principles in action, we will give the assignments for our 28 play. Only an undershifted 6-2-2-1 and an overshifted 6-2-2-1 defense will be shown. These defenses differ enough to show the "man on" and "no man on" principles we wish to demonstrate. It is not possible to have each play ideally mapped out for every defense that might be used against it, but the way our assignments are set up, we always give the players blocking angles against any standard defense from a 4-4-2-1 to an 8-3.

In plays 28 and 128, as shown in Diagrams 6 and 7, if there is a man on the right end, the right end should bump him, get to the cut-off and block. If there is no man on him, the right end should get to the cut-off and block. The right tackle should check the man on him at the line of scrimmage. If there is no man on the right tackle, he checks the first man on his right. The right guard pulls and blocks in through the hole. In an eight-man line the right guard should check the man on him or the man between him and the offensive man on his left. If there is a man on the center, the center should check him at the line of scrimmage. If there is no man on the center, he checks the first man on his right. The left guard pulls and blocks out at the hole. If there is a man on the left tackle, the left tackle should post and the left end will lead. If there is no man on the left tackle, he checks the first man on his right. If there is a man on the left tackle, the left end leads on him and the left tackle posts.

If there is no man on the left end, he blocks in on the first man to his right. The right halfback reverses, gets the ball from the fullback and leads into the 8 hole. The quarterback blocks out through the hole. The fullback gets the ball from the center, spins, fakes to the left halfback, gives to the right halfback, and fakes into the 4 hole. The left halfback fakes a 21 and goes around the right end.

The assignments for the balanced line correspond so closely with what each man does from the unbalanced line that very few changes in assignments are required to run from both

Optional Spread

(Continued from page 24)

which may successfully shake free the deep receivers. There are many others which the wise coach may plan out according to the defenses he meets.

In Diagram 4 we see the screen pass which may be used against an over-anxious line which charges fast. Sending receivers out deep tends to pull back the secondary. Then the center or the quarterback may brush block or fake a block, go short, and button hook for a short screen pass. Here again, we have the option of sending out both of these players or just one, depending on the defense. Throwing this pass a few times will definitely slow up a charging line.

The defense must play us fundamentally man-for-man since our short passes are equally as dangerous as our deep ones. Thus, our ball-carrier, even without blocking, must avoid only one tackler in many cases. The center and quarterback must realize that if they do miss their assigned block the ball-carrier may still flip them a short pass if he is in danger of being tackled.

Diagram 5 shows the tailback selecting the running option. He must have the ability to make the correct choice as to where and when to run. This ability will be attained through experience gained in scrimmages and in games. One good block on either of the defensive linemen will shake the ball-carrier free. If a third defensive lineman charges, this will leave our center or quarterback open for the short screen pass. Again, the option rests strictly with the tailback. When the ball-carrier gets over the line of scrimmage the deep pass receivers block the men who have been covering them.

In Diagram 6 we see a means of



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stopping fast-charging linemen. After the snap, the wingback runs parallel with the line of scrimmage and receives a screen pass behind the line. Then both the quarterback and the center allow the charging linemen to seep through. The quarterback leads the play, as diagrammed, while the center blocks the defender who is intent on watching the wingback. Then the left end fakes downfield and blocks his man out. This play works effectively in stopping a fast-charging line, or at least in reducing the number of charging defenders.

There are many other plays which may be developed out of this formation, but a great number of plays are not really necessary. The strength of this spread formation rests in its many options. A deep pass is effective against a team that does not play us man-for-man; the screen pass is effective against the charging line; and the runs work well against linemen who wait and are, therefore, an easy target for our blockers.

Undoubtedly this formation does require a great deal of running by all six offensive men but; conversely, the defensive players must run just as much to keep up with the offense. While practicing this formation we found it a wonderful conditioner,

thus killing two birds with one stone. We have found it effective to rotate our backs and make frequent substitutions. It does not take an outstanding back to make this formation successful although one does help, as he would in any formation.

An example of what may happen was brought to light in one of our games. One of our backs was a good runner but not much of a long passer. The defensive line was ordered to charge him quickly in order to stop his running. After one play in which this situation arose, our tailback, sensing the strategy, faked a run and threw a short screen pass to our quarterback who broke into the clear. This tended to slow down the charging linemen and strengthened our running attack again.

We do not contend that this formation should be the only one used by a six-man team. This spread was used in conjunction with our T formation since there are situations where the spread formation is not practical. As we mentioned previously, this formation is easily and quickly taught, and thus adds variety to the offense. The modern trend in both six-man and eleven-man football is to increase the variety of offensive formations thrown at the defense.

Very rarely does one see a team which uses only one offensive formation throughout the entire game. Even a team that uses the straight T has its flankers and men in motion which changes the formation. This spread may be just what some six-man football coaches need to lend variety to their offensive attack.

The Flight System

(Continued from page 26)

commended here appeals to the majority of participants, for most players like to compete with others in their own class so that they may have an even chance to win. People usually take part in activities in which they may hope to succeed.

Second, some people would consider the labeling of players an advantage since the difference in players becomes widely known.

Third, the flight system encourages greater activity on the club ladder. This increased activity is worthwhile, for in many places the ladder is stagnant. This system, as outlined, is one of the best programs to use in promoting the serious play needed in most net groups.

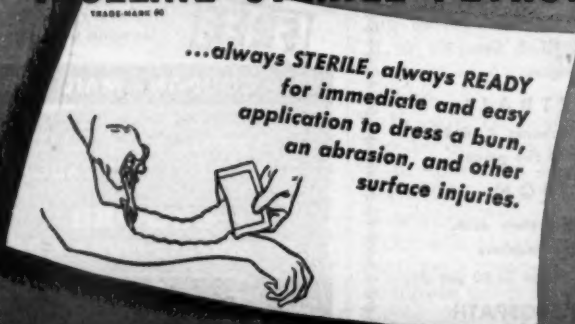
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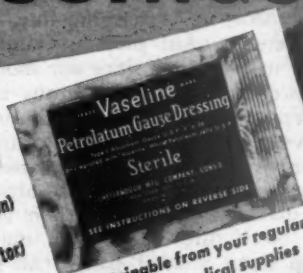


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system is that it makes the tournament more interesting. Every match is likely to be close, and both spectators and participants enjoy close competitions. There are no "breathers" in which the stronger player severely trounces the weaker opponent. Upsets, however, still occur frequently.

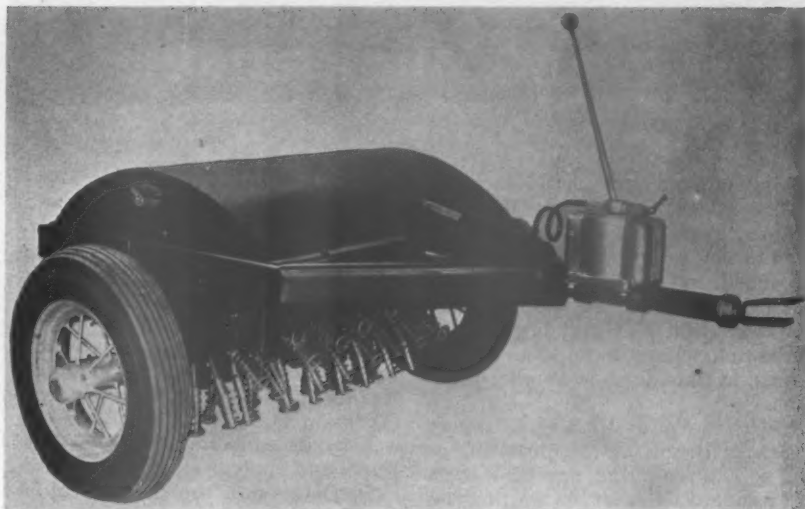
Fifth, the flight system requires less time and fewer courts. With several small tournaments instead of one large event, the flight system necessitates a fewer number of matches, thus accounting for less time and fewer courts required. Having fewer matches is of real importance in the average tennis situation where facilities and time are always significant.

Sixth, the flight system is flexible. More divisions may be added to suit the ability groups. The size of flights can be altered if necessary. Also, the flight system may be combined with other types of events such as double elimination and novice events. For instance, a double elimination tournament may be held in one of the flights when only a few entries are competing. Furthermore, the system is flexible enough to adapt easily to a school or playground situation. We have used it with success in both places. Also, the system has been used with favorable results in tournaments for other similar individual activities such as badminton, horseshoes, shuffleboard, table tennis, squash, and handball where the organization of a ladder is appropriate. The flexibility of the flight system is one of its greatest assets.

The seventh advantage is that a tournament committee which uses the flight system eliminates possible adverse criticism on the designation of seedings. The committee simply uses the current rankings on the ladder.

Eighth and last, the recommended system stimulates greater participation each year. It has always happened in our experience that the flights grow in size and number in successive years. For instance, if there were only six in a flight one year, the following year eight or ten would compete. If only two flights were sponsored the first year, usually three flights composed the championship the second season.

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Coaching Prep Schools

(Continued from page 22)

having selected and placed the best eleven players, some time must be devoted to position play so that new men in new positions may become accustomed to their new roles. The team has reached the point where work on team play may begin. Now is the time to start to build an offense which, in time, leads to another problem.

Problem No. 4—Meeting Changing Defenses. In solving this problem, we use a T offense and oppose it with six standard defenses. As we progress in this solution, rules will evolve around which the offense will operate. We will start with the basic dive play by the right halfback.

Rule No. 1. The coach should teach from a standard 6-2-2-1 with the on-side defensive guard as G (Diagram 1).

Rule No. 2. In Diagram 2, against a 5-3-2-1, G is considered to be the middle linebacker. The ends block

in the cut-off, and the center always blocks a man in front of him away from the play. All of the other players remain in the same positions.

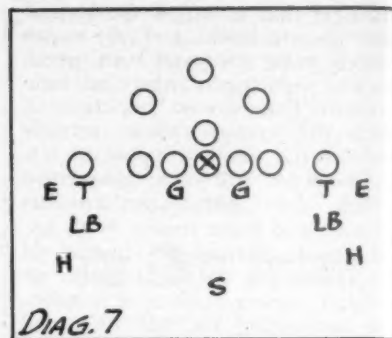
Rule No. 3. Against a 5-4-2 the "inside on-side" linebacker is G (Diagram 3).

Rule No. 4. If a defensive player lines up in the hole, cross block. Against a 7-1-2-1 the linebacker is G (Diagram 4).

Now, let us look at a few other defenses and apply the rules that govern.

In Diagram 5, the center is blocking the man in front of him and the ends are in the cut-off.

Diagram 6 shows an overshifted 6-2-2-1. The defense is seven right—five left. Rule No. 2 governs the center, and Rule No. 4 governs the on-side guard. The solutions to the various standard defenses may be applied to all offensive blocking assignments. With the problem of meeting the changing defenses out of the way, we



may now proceed to our final problems; namely, the problems of defense. The key to solving this question lies in simplicity. One, two or three defenses with simple variations are preferable to a large number of helter-skelter maneuvers. Two standard defenses with simple variations are shown. To these may be added variations that might be indicated from scouting reports. We will defend against a standard T as is shown in the offensive examples.

In defending against a standard T, (Diagram 7), the ends should observe strict territorial responsibility. They should help on the inside, but



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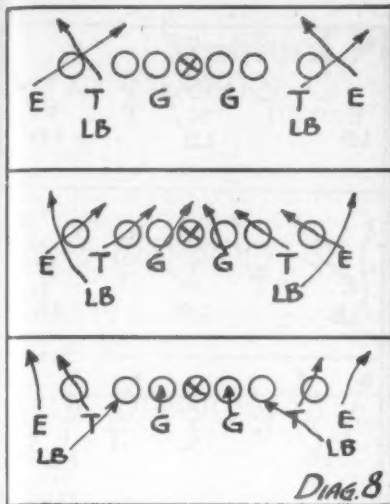
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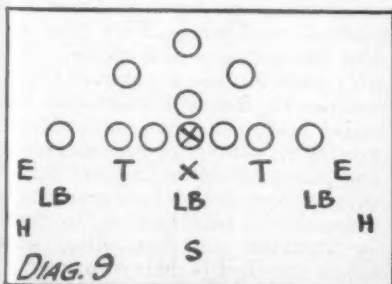
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are definitely responsible to the outside. The tackles should be in the gap and fight resistance. They should not penetrate too deep, if at all. Each of the tackles should defend the ground he is on. The guards should play head on and not cross. The linebackers are the auxiliary linemen. They should cover the holes to their front, left, and right. On passes, they should back into hook shots and then cover to the outside. The halfbacks should be six to eight yards deep and outside the offensive ends. They should cover running plays from the outside. On passes they take the deep outside receiver and cover the man-in-motion.

The B variations are shown in Diagram 8.

In the play shown in Diagram 9, the ends crash at the fullback and have only inside responsibility. The tackles should drive to the seam and seal. In the case of the center, he should play head on and hold ground. The outside linebackers have outside running responsibility against passes back to hook spots and then outside. Middle linebackers should check holes in front and to either side. They should also check against passes back into the center area. The halfbacks cover runs from the out-



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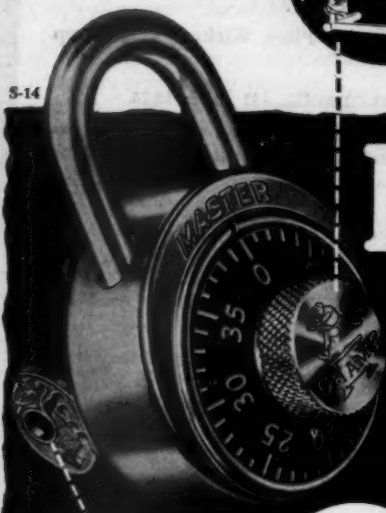
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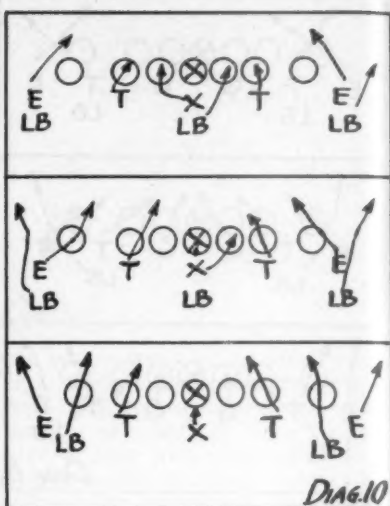
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Diag. 10

side. They should cover the outside deep in passing and the man-in-motion. The safety should cover inside on runs and inside deep on passes. If a halfback vacates to take the man-in-motion, the safety takes his place.

To these basic defenses, with variations, may be added slanting and looping lines, and a great number of other devices. However, the above will suffice if it is well-learned and vigorously used.

In conclusion, one other problem might be mentioned, and that is relations with the remainder of the faculty. In solving this problem we suggest the use of good common sense. The coaches should understand that they, too, have their problems, and it is part of the job of the coaching staff to be considerate and helpful.

Sequoia High School

(Continued from page 11)

swim a minimum of 50 yards. This is a regulation of many years standing, and is highly commended by the military authorities. Games such as volleyball, badminton, tennis, golf, and many others are stressed for these reasons.

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Stanford Pitching Chart

(Continued from page 36)

two hits were made off high pitches, 14 off middle pitches and six off low ball pitching. This information is revealing, and while it may not be the average, it should not be too far from it.

Chart IV is an interesting study in pitching and batting. Perhaps there

are not enough cases to show proper validity; however, the figures show a fairly true picture of the batter when hitting the fast ball, the curve, a first ball hitter, a hitter hitting ahead, behind, and even in count. A chart of this nature could be used to build confidence in the hitter as a certain

CHART III

Game			1	2	3	4	5	6	7	8	9	10	Totals
San Jose			P-H	P-H	P-H	P-H	P-H	P-H	P-H	P-H	P-H	P-H	Pitches - Hits
4-13-51													
Player	Inning												
Osenbaugh	Fast Ball	H		3-0	1-0	5-0	1-0						10 0
		M	3-1	2-0	3-0	2-0	2-0	3-0					15 1
		L	6-0	1-0	1-0	6-2	2-0	6-0					22 2
	Curve Ball	H		1-0	1-0		1-0						3 0
		M		4-0	1-0		2-0	1-0					8 0
		L	2-0	1-0	2-0	2-0		3-0					10 0
Chez	Change	H			1-0			2-0					3 0
		M											0 0
		L											0 0
	X-Fire	H		1-0	1-0								2 0
		M					1-0	1-0					2 0
		L		1-0									1 0
Murphy	Fast Ball	H						5-0					5 0
		M						5-3					5 3
		L						8-1					8 1
	Curve Ball	H							1-0				0 0
		M							2-0				1 0
		L											2 0
Collins	Change	H											0 0
		M											0 0
		L							4-0				4 0
	X-Fire	H											0 0
		M											0 0
		L											0 0
Collins	Fast Ball	H	3-1	2-0	3-0	2-0		1-0	1-1	1-0			13 2
		M	6-0	3-0	4-0	4-1	4-1	11-5	2-0	1-0			35 7
		L	2-0	3-0	3-0	2-1	1-0	4-0	2-0	1-1			18 2
	Curve Ball	H	3-0	3-0	1-0		1-0		2-0	2-0			12 0
		M	4-2	2-0	1-0	1-0	2-0	3-0	1-0	1-0			15 2
		L		2-0	2-0	2-0		5-0	2-0				13 0
Collins	Change	H	1-0	1-0				1-0					3 0
		M											0 0
		L							1-0				1 0
	X-Fire	H											0 0
		M											0 0
		L											0 0
Collins	Fast Ball	H											0 0
		M											0 0
		L											0 0
	Curve Ball	H											0 0
		M											0 0
		L											0 0

Key
P—Pitches
H—Hits
H—High
M—Middle
L—Low

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type hitter; e.g., a good hitter when behind in count. Few hitters receive this type of information on themselves; this could be of great assistance to them. Pitchers would be wise to study this chart carefully. The highest averages seemed to be on the fast ball and first ball hitters. A logical conclusion could be that a few more curve balls on the first pitch might produce more successful seasons for more pitchers.

Chart V shows the number of times in each game that the Stanford pitchers and their opponents were ahead, behind, and even in count. This is an eye opener to pitchers who appreciate the importance of being ahead of the hitter in order to make the most of pitching strategy. If pitchers would study this information and all of the other information taken from Chart I, they could not help but improve if they have the desire to do so.

The last chart (6) demonstrates some convincing facts about the comparative number of hits off fast balls and curve balls. The advantages of low ball pitching are also brought out in this chart, while the disadvantages of the middle pitch are clearly shown. Very poor control in the change-of-pace, which is an excellent coaching point for the pitchers, is shown. There were 200 change-of-pace pitches

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CHART IV

Player		San Jose 2-27	U.S.F. 3-2	Berkovich 3-3	El Toro 3-8	U.S.F. 3-12	Compton 3-24	Santa Barbara 3-27	U.S.C. 3-30	U.S.C. 3-31	California 4-6	Santa Clara 4-7 1st	Santa Clara 4-7 2nd	S.F.S.C. 4-10	San Jose 4-13	Alumni 4-14	U.S.F. 4-17	U.S.C. 4-20	Santa Clara 4-21	Santa Barbara 4-24	U.C.L.A. 4-27	U.C.L.A. 4-28	California 5-5	California 5-12	Batting Average	
Cameron	Fast Ball	0-1	1-2	0-5	0-2	1-2	1-5	1-5	2-4	3-5	0-2	2-3	1-4	2-3	2-4	1-4	1-2	0-2	2-4	0-4	0-4	0-1	0-2		.286	
	Curve Ball	0-1				0-2			0-1		0-1			0-1		0-1	1-1					0-1	0-3	1-3	.133	
	Change														0-1			0-1						0-1	.000	
	X-Fire																								.000	
	1st Ball Hitter			0-1				0-1	0-1	2-2		0-1	1-1			1-1		1-1	0-2	0-1		0-1		0-1		.357
	Ahead Hitter			0-1	0-1		1-1		0-1	0-1				1-2	0-1	1-1				0-2	0-1					.273
	Behind Hitter	0-1	1-2	0-1		0-2	0-1	1-3	0-3	1-1	0-2	0-1	1-2	1-2	1-2	0-2	1-1	0-1	1-2	0-1	0-1	0-1	0-3	1-4	.231	
	Even Count	0-1		0-3	0-1	0-2	0-3	2-2	2-3	2-3	0-1	2-2	0-2	1-2	0-2	1-2	0-2	0-2	1-2	0-1	0-2	0-1	0-2		.237	
	Fast Ball	2-3	2-3	2-4	1-3	0-2	2-2	1-3	1-4	2-5	1-1	1-5	0-3	1-5	2-3	0-3	0-3	0-2	3-5	0-2	0-2	0-2	1-4	0-2	.310	
	Curve Ball	0-1	1-2					1-1			0-2		0-1		1-1	0-2	0-1				0-1			0-2	.214	
Abrahamson	Change			1-1																					1.000	
	X-Fire																	0-1							.000	
	1st Ball Hitter			0-1	1-2	0-1	1-1		0-2	1-1	0-1	1-2	0-2	0-1	1-1	0-1	0-2						0-1		.250	
	Ahead Hitter			1-2	0-1			1-1						1-1	1-1	0-1	0-1	0-1	1-2	0-1	0-2		0-1		.333	
	Behind Hitter	1-1	1-3	1-1		1-1	1-3	1-2	1-4	0-1	0-1	0-2		1-2				0-2	1-1	0-1	0-1	0-2	1-3	0-1	.313	
	Even Count	1-3	1-2	1-2	1-2	0-2	1-1		0-2	1-1	1-2	1-4	0-2	0-4	1-1	0-4	0-3		0-2				0-1	0-3	.220	
	Fast Ball	1-2	1-5	3-3	0-3	0-3	1-2	1-2	2-4	0-2	0-3	0-3	1-3	2-3	1-4	2-3	1-4	1-3	2-3	1-3	1-2				.350	
	Curve Ball	0-1			0-1		0-1	0-1		1-1		0-1		1-2							0-2		0-3	0-3	.123	
	Change			1-1		0-1							0-1						0-1			0-1	0-1	0-1	.143	
	X-Fire																								.000	
	1st Ball Hitter	1-1		1-1			0-1		1-2				0-2	1-1					1-1			0-1	0-1	0-1	.417	
	Ahead Hitter		0-2			0-2	1-2	1-1	1-1	0-2		0-1	0-1	2-2	1-1	0-1	1-2		1-2	0-2			0-1		.348	
	Behind Hitter	1-3	2-2	0-3	0-1			0-1	1-1	0-2	0-2		0-2	0-2		0-1					1-3		0-2	0-1	.192	
	Even Count	1-3		3-3	0-1	0-1	0-1	0-2	1-2		0-1	0-1	1-3	1-1	1-1	2-2	0-1	1-3	1-2	1-1	0-1	0-1	0-1	0-3	.371	

Ahead Count — 1-0, 2-0, 3-0, 3-1;
Behind Count — 0-1, 0-2, 1-2, 2-2;
Even Count — 0-0, 1-1, 2-1, 3-2;

CHART VI

1. TOTAL SEASON AVERAGES 24 GAMES. (Number of pitches divided into number of hits.)

STANFORD VARSITY PITCHERS

FAST BALL			CURVE BALL			CHANGE			X-FIRE		
Pitches	2,385		Pitches	852		Pitches	123		Pitches	36	
Hits	141		Hits	21		Hits	9		Hits	2	
Average	.0591		Average	.0246		Average	.0732		Average	.0356	

OPPONENT PITCHERS

FAST BALL			CURVE BALL			CHANGE			X-FIRE		
Pitches	2,151		Pitches	844		Pitches	133		Pitches	19	
Hits	164		Hits	23		Hits	7		Hits	0	
Average	.0762		Average	.0273		Average	.0526		Average	.0000	

2. TOTAL AVERAGES OF GAMES FROM 3-12-51 to 5-19-51 WITH HIGH, MIDDLE, LOW TABULATION OF PITCHES.

STANFORD VARSITY PITCHERS

FAST BALL				CURVE BALL				CHANGE				X-FIRE			
H	M	L		H	M	L		H	M	L		H	M	L	
Pitches	616	672	560	186	262	275		24	32	24		17	25	14	
Hits	18	66	28	4	13	2		3	4	0		1	1	0	
Ave.	.0292	.0982	.0500	.0214	.0410	.0072		.1250	.1250	.0000		.0588	.0400	.0000	

OPPONENT PITCHERS

FAST BALL				CURVE BALL				CHANGE				X-FIRE			
H	M	L		H	M	L		H	M	L		H	M	L	
Pitches	492	745	513	155	301	238		36	60	24		6	9	4	
Hits	23	94	19	2	17	3		1	3	0		0	0	0	
Ave.	.0467	.1262	.0370	.0129	.0564	.0126		.0273	.0500	.0000		.0000	.0000	.0000	

thrown by Stanford and opposing pitchers. Of these 152 were high or belt high pitches. This showed our pitchers there was much work to be done.

In conclusion, we feel that these

charts are an excellent medium for creating more interest in baseball, for teaching more baseball, and through this research, creating more objective information on pitching.

Olympic Prospects

(Continued from page 41)

did not defeat a Finnish entrant until the final vault. This year it should be a much easier task. The United States may draw on three men, each of whom has vaulted over 15 feet in the air, while the other nations will be fortunate if they are able to produce a 14-foot vaulter.

Last year's best non-United States vault was credited to Petr Denisenko of the U.S.S.R. who went over the bar at 14 feet, 4 inches at Kiev for a new Russian record. Denisenko is one of the Soviet's decathlon aces who has recently started to concentrate on the vault. However, he is not consistent at 14 feet, 4 inches, and has been defeated frequently at lower figures by a hard-working Ukrainian, Vladimir Brazhnik. Brazhnik won the 1951 all-Russia championship at 14 feet, 1/8 inch.

According to the continental critics, however, the man to watch as a threat to the Americans, is Iceland's Torfi Bryngeirsson. Bryngeirsson scaled 14 feet, 2 1/2 inches recently and has the form to go even higher. If he is able to get in sufficient workouts in his

homeland's Arctic climate, he might someday be Europe's first 15-foot vaulter.

European champion and record holder at present is the veteran Ragnar Lundberg of Sweden. His 14 foot, 5 1/4 inch vault in 1950 is the best ever negotiated by a non-American, but he slipped 4 inches last year and may decline further by the time the Olympics start. On the way up is Victor Sillon, representing France. Sillon, who became the first member of a Latin country to hit 14 feet last July when he soared over 14 feet, 1 inch, defeated the No. 4 vaulter of the United States, Walt Jensen, twice last summer. Like so many members of the French national team, Sillon does not come from France, but from the island of Martinique in the West Indies.

Russia will probably bring to Helsinki the grand old man of the vault pits, Nikolay Ozolin, who is now past his fortieth birthday, but he will stand little chance of placing since he is now able to top only 13 feet, 6 inches or thereabouts.



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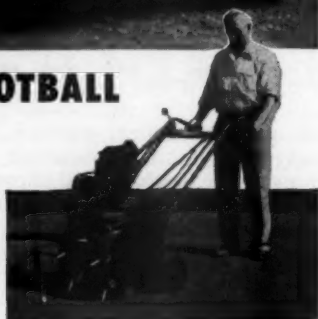


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America's three stand-out hopes, Robert E. Richards, Don Laz, and Don Cooper, all vaulted over 15 feet last spring and are in that neighborhood again this year. Until last year, only one man in the one-hundred-year history of the event had vaulted over 15 feet. Then in February, Richards managed the feat indoors and a month later had pushed his personal ceiling up to 15 feet, 3¾ inches—still indoors off springy board runways. Cooper, a University of Nebraska student, was the second man in history to accomplish the 15-foot vault outdoors from a regulation cinder runway. On April 21 at Lawrence, Kansas, he vaulted over 15 feet, ½ inch. Two hours later on the same day in Los Angeles, Laz, vaulting for the University of Illinois, did 15 feet, 1¼ inches. Richards registered 15 feet, ½ inch in his first outdoor vault in Denver three weeks later, then went on to defeat both Laz and Cooper when they met, and remained undefeated for the year.

Richards is a bundle of muscles, nervous energy, and determination and he may take the Olympic title from Laz and Cooper, both of whom are taller and faster than he is, because he will not allow himself to lose. Richards is aiming not only for the Olympic pole vault title and the Olympic decathlon title, but also for the world record in the vault, which is held by the incomparable Cornelius Warmerdam, who cleared 15 feet on 43 occasions from 1940 to 1944, and who boosted the human vault ceiling to 15 feet, 7¾ inches.

America has other good men in this event such as Walt Jensen, Bobby Smith, George Mattos, Dick Coleman, Dick Shivers, and Jerry Poucher. Thus far, none of these men has vaulted 15 feet.

Without hesitating, we will nominate: 1. Richards (U.S.A.); 2. Laz (U.S.A.); 3. Cooper (U.S.A.); 4. Bryngeirsson (Iceland); 5. Lundberg (Sweden); 6. Sillon (France).

800 Meters

Tuesday will also bring the 800-meter final. This half-mile test of speed, strategy, and endurance may produce one of the most exciting races in history.

Whitfield, a product of Jefferson High School, Los Angeles, Ohio State University, and the United States Air Force is the principal contender in this race. He is defending the Olympic 800-meter title, is the holder of the world record for the comparable English distance, 880-yards. Since

Whitfield's top competition is still Arthur Wint, whom he defeated at London in 1948, and since the intervening four years and 30 bombing missions over Korea do not seem to have slowed him up, it is logical to assume that Whitfield may successfully defend his title.

However, it may be that Wint, the 6-foot, 5-inch Jamaican with the powerful stride, is faster now than when he chased Whitfield to the Olympic record at Wembley Stadium. Since that day both men have run faster races than the 1 minute, 49.2 seconds that set the record. In 1950 Whitfield turned in his best effort, 1 minute, 48.5 seconds for 800 meters. Last summer Wint ran 1:48.9.

A young Norwegian, Auden Boyesen, was clocked in 1:48.7 during the summer of 1950. This gave rise to the belief that he might be the next Olympic champion in the 800, but two weeks later he placed fifth in the European Championships in much slower time, and in 1951 he could do no better than 1:50.4.

Urban Cleve and Heinz Ulzheimer of Germany appear to be improving rapidly, and would like to secure for the Fatherland, (West Germany), the Olympic title which Rudolf Harbig, world record holder for 800 meters at 1:46.6, was deprived of in 1940 by the march into Poland and subsequent events.

Also in the thick of it will probably be Patrick El Mabrouk of France by way of Algiers; Britain's John Parlett, the European champion who has a blazing sprint finish; Parisian sports writer Marcel Hansenne who might try another comeback; and Erik Wolfbrandt of Sweden, a quarter-miler who decided to run another lap. Russian champion, Pyotr Chevgun, would be out of his depth in this company.

Representing the United States along with Whitfield, should be John Barnes and Roscoe Browne. Barnes, a student at Occidental College in California, can boast of two victories over Whitfield in the past two years, a statement no other man can make. Browne is a professor at Lincoln University, and he did 1:49.3 in a race at Paris last summer.

Timidly, we make the following forecast: 1. Wint (Jamaica); 2. Whitfield (U.S.A.); 3. Barnes (U.S.A.); 4. Browne (U.S.A.); 5. Parlett (Great Britain); 6. Cleve (Germany).

Discus Throw

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after a year of work in South Africa. In 1948 Gordien was relegated to third place in the discus by the Italians, Adolfo Consolini and Giuseppe Tosi. However, the following year Gordien broke Consolini's world record a half dozen times. His farthest throw measured 186 feet, 10 $\frac{3}{4}$ inches, in Hameenlinna, Finland.

Meanwhile, Consolini, a 181-footer, and his shadow, Tosi, a 179-footer, have been throwing as often as possible with no signs of weakening.

In Gordien's absence, Dick Doyle, a Montana student, won the 1951 United States title with a 175-foot throw, but the following month, while in Italy, he lost two straight to Tosi. The United States has five other throwers who will probably be able to take the measure of all but the quartet mentioned above: Vic Frank, a Yale Law School student; Bob Mathias, the Olympic champion and world record holder in the decathlon who has become a top-flight discus thrower; Sam Iness, a high school schoolmate of Mathias at Tulare, California; Jim Dillon, a young Alabamian with great possibilities; and Jim Fuchs, prominent shot put-ter.

At the present time the United States and Italy have the greatest discus throwers. Ferenc Klics of Hungary throws 167 feet consistently, and while in Moscow got off a 169 foot, 9 inch throw. Veitto Nyqvist of Finland, Ivar Ramstead of Norway, Gunnar Huseby of Iceland, Josef Hipp of Germany, and Heino Lipp of Russia are also steady 160-footers. The chief exponent of the discus throw in Greece is still Nicolas Syllas who placed in the 1936 Games in Berlin.

A prediction: 1. Iness (U.S.A.); 2. Consolini (Italy); 3. Tosi (Italy); 4. Gordien (U.S.A.); 5. Doyle (U.S.A.); 6. Klics (Hungary).

Hop, Step and Jump

The first finale on Wednesday afternoon's program, the hop, step and jump, is a lost art in the United States. It was lost about 35 years ago and has never been re-discovered. As a result, the American boys will do well to place among the top twenty hop, step and jumpers at Helsinki.

Last fall a new world record in the event was produced in Rio de Janeiro when a 24-year old Brazilian, Ademar Ferreira da Silva, jumped 52 feet, 6 $\frac{3}{4}$ inches which was just $\frac{3}{4}$ of an inch better than the Olympic record and the previous world mark set by Japan's Naoto Tajima in the Berlin Olympics in 1936. Also in Rio, a

month later, Helio Coutinho da Silva jumped 52 feet, 2 inches.

If either one of these South Americans does not win the top spot in the hop at Helsinki, his failure should be blamed on the climate. The stiffest competition will come from the short Japanese who have always excelled in this tall man's event. Japan, although by no means back to its pre-war athletic standards, already has a group of good hop-step performers such as Keizo Hasegawa (51-3); Yoshio Iimuro (50-8); Kichigoro Fujihashi (49-5); Mankichiro Kawano (49-8); Itsuji Yamada (49-5); Arao Maedo (49-11); A. Nishimura (49-6); and A. Nakayama (49-5).

It is in this event that the Russians might take their first gold medal, since European champion, Leonid Shcherbakov at 51-8, and Boris Zambrimborts at 51-4 are both good competitors, and will be more accustomed to the terrain and climate. Australia's Brian Oliver (51-2) will be the English-speaking favorite. Arne Ahman of Sweden, and 1948 Olympic winner, Reino Hiltunen and Valdemar Rautio of Finland, and Turkey's Ruhi Sarialp could break into the scoring.

In this event the United States will probably enter two 48-footers, Bill Albans, versatile Occidental undergraduate, and Gaylord Bryan, Stanford graduate student.

Our choices: 1. A. da Silva (Brazil); 2. H. da Silva (Brazil); 3. Hasegawa (Japan); 4. Shcherbakov (Russia); 5. Iimuro (Japan); 6. Oliver (Australia).

200 Meter Dash

In the final of the 200-meter dash the world's speediest will be able to renew their 100-meter feuding over a longer course.

Britain's McDonald Bailey, who seems to be reaching his peak in his thirties, will again be the man to defeat. If Stanfield is in top condition, he might be the winner. Sukharyev of Russia; Britain's Brian Shenton, the holder of the European 200-meter title; Peter Kraus and Werner Zandt of Germany; and Australia's de Gruchy should not be far back. Jamaica's wonderful quarter-milers, George Rhoden and Herb McKenley, will probably add interest to this race.

The three American entrants in this event, as in all others, will be the first three finishers in the Final United States Olympic Tryout Meet to be held in the Los Angeles Coliseum, June 27 and 28.

These three might well be Stanfield, Art Bragg, who is Rhoden's teammate at Morgan State College, and Charley Thomas, a big, power-

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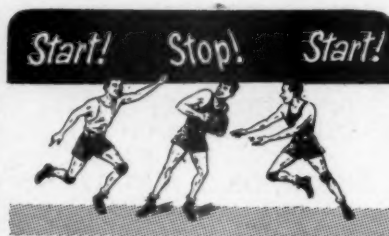
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ful University of Texas sophomore. For that matter it might be Walt McKibben of Glendale, California, George Brown, the peerless broad jumper, and Jim Ford of Drake. Or again it might be Ollie Matson of San Francisco, Jim Golliday and Henry Thresher, the Yale prospect who seems to have recovered completely from an attack of polio last summer. Whoever they are, we may expect all three of them to make their way to the final at Helsinki through three rounds of preliminary races.

We suggest the following finishing order: 1. Stanfield (U.S.A.); 2. McDonald Bailey (Great Britain); 3. Rhoden (Tamaica); 4. Thomas (U.S.A.); 5. Ford (U.S.A.); 6. Kraus (Germany).

Javelin Throw

But the highlight of the afternoon for the 60,000 spectators in the Olympic Stadium will not be the blazing 200-meter final; it will be a succession of throws in the final rounds of the javelin. For the past 40 years the Finns have led the world in this event, but now their supremacy is being threatened. A broad-shouldered young physicist from San Diego, California, Franklin (Bud) Held, has them worried.

Last summer in Stockholm Bud threw the javelin 249 feet, 8½ inches to beat Scandinavia's best which included Per Berglund and Ragnar Ericzon of Sweden, Soini Nikkinen of Finland and Hans Moks, a refugee from Estonia who now lives in Sweden. This was the world's longest competitive throw since the beginning of World War II and has been surpassed by only three men in history.

Since Held improved 16 feet last year it is not inconceivable that he could add another 16 feet this year, and thus erase the Finns' names from the javelin world mark for the first time in almost 40 years. It would also make him the first Olympic javelin champion from the United States.

However, the Finns will not go down easily, particularly in front of their friends and neighbors in Helsinki. Nikkinen got off an equally impressive throw of 249 feet, 1 inch a few weeks later which would indicate that he is Held's No. 1 challenger. Berglund with a best of 246 feet, 10 inches and Ericzon at 242 feet, 6 inches will be the Swedish contenders. Finland will counter with Nikkinen; Toivio Hyytiainen, the European champion and a 240-footer; and Kaj Tapio Rautavaara, a 238-footer and Finnish movie actor who won the title at London in 1948.

Contenders from the United States will probably come from among: Held; Bill Miller, the Marine recruit whose 237 foot, 10 inch toss last year established a national collegiate record; Cy Young, a big Modesto, California boy who had a 241 foot, 11 inch throw last spring; Ralph Roy-lance, a little fellow with a mighty arm from a farm near Smithfield, Utah, who has done 233 feet, 6 inches; Dr. Steve Seymour, the Long Beach, California physician who was second to Rautavaara in 1948; Midshipman Bob Allison who may win the collegiate javelin title for the Naval Academy this spring; and Chuck Missfeldt and George Raseme, a pair of West Coast collegians. Never before have we had so many excellent javelin throwers.

Mystery man in the competition is likely to be the fabulous Viktor Tsi-bulenko of Russia, who was reported to have gotten off a 240 foot, 8 inch throw in the snow and ice at Jassy in November of 1950, but who has not approached that mark in more believable surroundings since that date. Others in the Soviet group are Yuriy Shcherbakov and Harri Val-man at 235 feet, and Sergey Kuznet-sov and Viktor Iyevlev, 225 feet.

Argentina's improving Ricardo He-ber bested Dr. Seymour to win the Pan-American Games title last win-ter, but appears to be out of his class in the Olympics.

Our prediction is for an American win: 1. Held (U.S.A.); 2. Nikkin-en (Finland); 3. Hyytiainen (Finland); 4. Miller (U.S.A.); 5. Berglund (Swe-den); 6. Rautavaara (Finland).

(To be concluded in June)

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Four-Man Line

(Continued from page 16)

ning threat, the passes will work with greater consistency. The running plays shown previously will cause the linemen to temper their rushes with caution, and this prudence will give the passer a fraction of a second longer to choose his receiver.

Diagram 8 shows a pass play in which the ball comes straight back to the tailback. This play resembles the buck up the middle which is shown in Diagram 2. The two backs form a pocket from which the tailback may throw a quick pass. Since the secondary is outnumbered, someone should be open to take the pass.

A running pass may be used off the plays shown in Diagrams 5 and 6.

In the play shown in Diagram 9, the center goes out as a delayed receiver and invariably is open. The end and halfback fake blocks on the secondary and then break for the pass.

These plays have worked to our advantage in instances where all four linemen rushed, or, in cases where some rushed and others waited or slid along the line of scrimmage. The reason for our success in the use of these plays may be attributed to having our players go between the defensive linemen, while the blockers merely kept them out of the hole or away from the point of attack.

In attacking the four-man line it is necessary for a team to be able to run against it, and to pass. Often the difficulty of penetrating the four-man defensive line setup is created by making the error of passing first.

A successful running attack helps the team psychologically. The four-man line is designed primarily to withstand a running attack. When the boys on the defensive team realize they are unable to stop the offense their confidence becomes badly shaken. On the other hand, the morale and assurance of a squad is greatly increased by the knowledge that they possess definite tools to compete against this bugbear of defensive alignment.

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Spring Football

(Continued from page 18)

out for track when spring football stopped. Now we have lost touch with the boys during the spring."

In order to show that there are a certain number of conflicting opinions in this regard, we quote from a coach whose conference has not permitted spring practice since 1934. "Our spring sports program for the past 18 years has been a lot better."

However, out of a total of 8,667 on the football squads it will be seen that only 4,366 or 50 per cent went out for spring sports who would not have formerly done so. The next question was obvious, and that was to determine whether the schools had started any other sports to fill the void. Here we see some improvement being made with 16 per cent of the schools adding one or more spring sports to their programs. An additional school will add track, tennis, and golf for the 1953 season. Two-thirds of the number of schools adding sports added one sport, while the remaining one-third added two sports. Baseball was new in nine schools, golf in eight, tennis in six, track in three, and tumbling in one.

The schools that did not add new sports were then asked what the members of the football squad who were not out for spring sports were doing in the way of athletics. Sixty-one per cent of the coaches answering this question did so by stating "nothing" or words to that effect. Nineteen per cent indicated the boys were receiving their athletics through physical education classes or intramurals. Eleven per cent indicated that those not out for spring sports were working either on the farms or in industrial plants. The other answers ranged from wrestling, spring basketball, and calisthenics to chasing girls.

Finally, we have a report on the number of coaches favoring and opposing the return of spring practice. In opposition to the return of spring practice were 57 per cent of the coaches.

From the study outlined above, we see a definite improvement in participation in the spring sports. In fact, half of the boys who formerly were on the spring football squad are now out for other spring sports. There is also an indication that more schools will expand their spring sports program by starting new sports; although we feel the progress in this direction in the first year was not as encouraging as it might have been.

On the other hand, the fact that half of the boys formerly out for spring practice are now not engaging in any form of competitive athletics is indeed most discouraging.

The question then remains, have we in our endeavor to increase participation in spring sports done so at the cost of overall participation in athletics?

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